

Australian Model Railway Association

JOURNAL

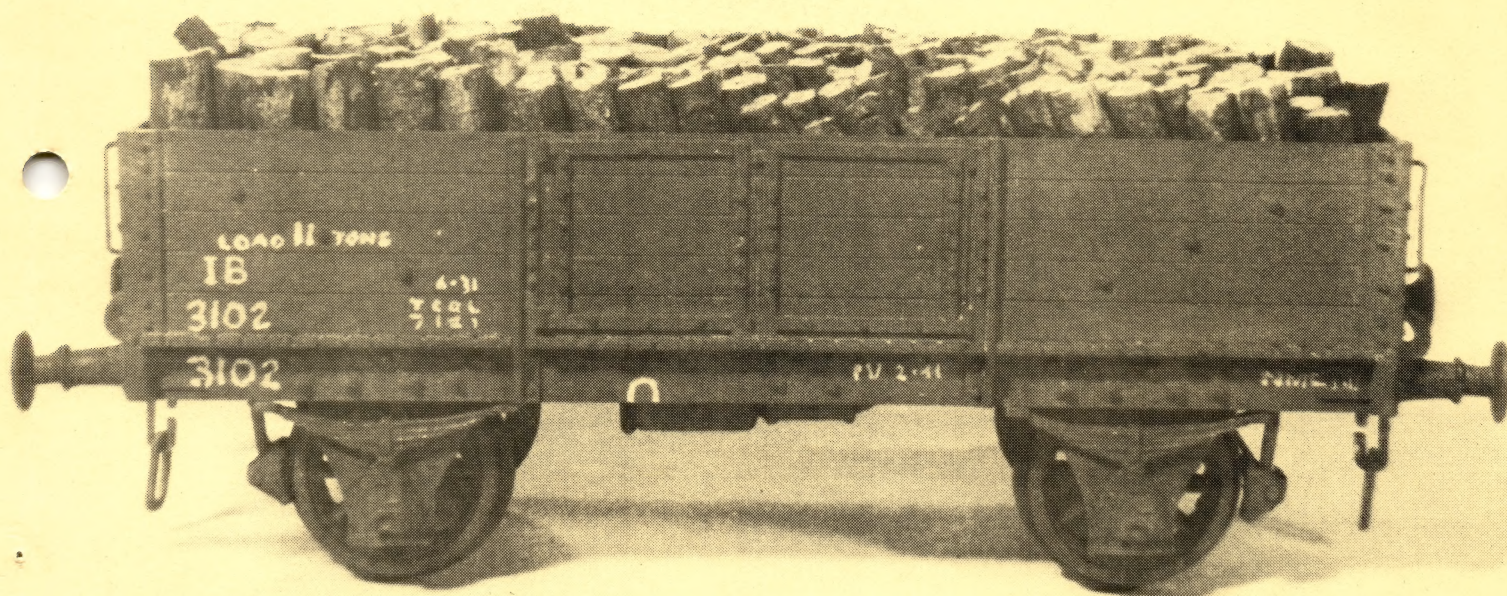
SEPTEMBER — OCTOBER 1985


VOLUME 34

Registered by Australia Post.
Publication No. VBH 1367.

NUMBER 168

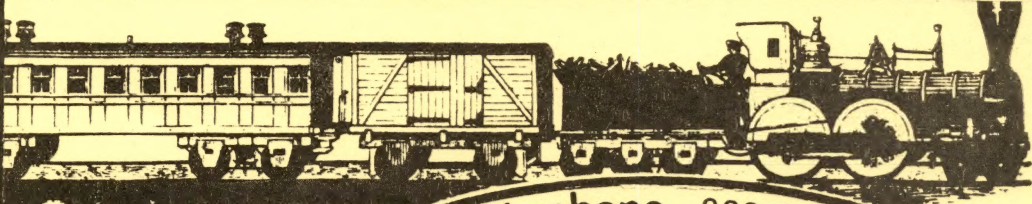
AT ISSN 0045-0715



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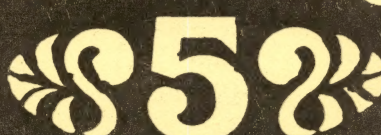
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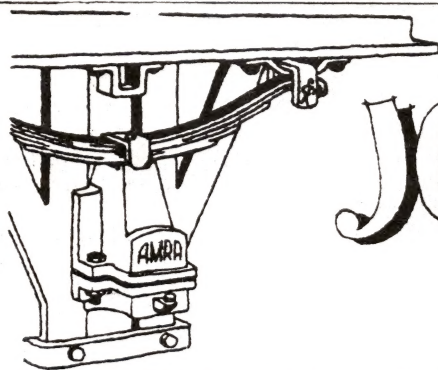
THE ENGINE SHED



52
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MODEL RAILWAY EQUIPMENT FOR ALL AGES





Editorial JOURNAL BOX

CONTENTS

Many moons ago we had what was known as the Advisory Panel, which answered members' queries if they wrote in to the Federal Secretary.

You might recall that in the last Journal a member wrote in to Pop Valve with a question on Cleminson Bogies. As you will read in Pop Valve this issue, we have had answers from as far away as New Zealand.

It would appear that this may be a better method of answering members' queries than the old Advisory Panel, which has lapsed due to lack of use. That is, of course, if we have enough space in Journal for all the answers.

We must still be doing something right. Another State has decided to save on postage of their regular newsletter by using the pages of Journal for their main news items, and only sending out a newsletter on special occasions. However, as can be seen in Roger Lloyd's note, we are again looking round to help with the preparation of Journal in that very important facet of layout/paste-up - a very exacting, time consuming job.

Volunteers please form a queue on my left.

Rex Little
Editor

Managing Editor Roger Lloyd
6 Keirs Court, Rosanna East 3034

Editor Rex Little
PO Box 46, Nunawading 3131

Advertising Manager Mrs Elizabeth Secker
2 Hilltop Avenue, Glen Iris 3146

Sub-Editors:
Queensland Steve Malone
3/117 Flower Street, Nundah 4012

New South Wales Philip Morgan
39 Renway Avenue, Lugarno 2210

Victoria Ron Thomas
3 Sturdee Road, Black Rock 3193

Western Australia Ted Thoday
Alan Porter
PO Box 60, Maylands 6051

Layout Roger Lloyd

Typing Helen McMullen

Printing AMRA Victorian Branch
92 Wills Street, Glen Iris 3146

Federal Secreary Phil Kelly
20 Lee Street, Condel Park 2200

Federal Registrar Norm Read
3 Augusta Street, Strathfield 2135

Federal Treasurer Ken Edwards
8 Easton Road, Berowra Heights 2082

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ON THE COVER

This fine HO scale model of a VR IB wooden open wagon won the Best Rolling Stock Award in the 1985 Victorian Branch Modelling Competition. This model of styrene construction was made by Philip Dunn.

The axle guards and buffers were cast in typemetal from Philip's own pattern.

Photo by Roger Lloyd

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— THE FEDERAL SCENE —

THE SECRETARY'S DESK

or, Hey you make sure you read this!

Once again we are coming around towards election time for Federal COM. No, the Federal Constitution has not been altered since last year, nor will it be altered before the 1985 ballot comes around.

This does not mean that any ballot held will be illegal, or unconstitutional.

Far from the assertions of some members that a constitution is a cut and dried, black and white, rigid controller of our actions, any constitution is open to both change and interpretation, hence the large number of constitutional lawyers making a very good living, thank you.

Federal COM has been told that it should 'get a lawyer to rewrite the Constitution properly' which is a total nonsense. For a LARGE sum of money, one can draw up one's own constitution and receive a 'legal opinion' upon it, but no lawyer will 'guarantee' a constitution to be 'correct' nor 'unchallengeable', even if he draws it up himself.

I would bring to your attention the sections of AMRA Constitution dealing with ballots. These sections have existed for over 20 years, have been read and reread by lawyers, without comment, and have never been questioned previously by members, for the simple reason that they have not been tested previously by the necessity for a ballot for COM.

Just so that there will be no confusion and no misconceptions, let me make it clear to all members that should a ballot be necessary for the election of the Federal COM for 1986, then it will be conducted in the following manner:

1 A ballot will be held to elect the Federal President and five Committeemen, whom will fill the offices of -

- a Vice President;
- b Secretary;
- c Registrar;
- d Treasurer;
- e Committeeman/PRO, or as required to assist the President.

2 Ballot papers will show the names of the candidates, and the position contested, i.e. President or Committeeman, and will group the candidates by branches.

3 Nominations will not be accepted from a branch if there are insufficient nominations from that branch to fill all vacant offices.

4 Ballot papers will be initialled by the Federal Secretary and distributed to financial members via Journal, except in the case of family members whose ballot papers will be distributed under the auspices of the Federal Registrar.

5 Voting shall be preferential, within the branch groupings, or as directed on the ballot paper. The term 'preferential' will not preclude the use of ticks or crosses if so directed on the ballot paper.

6 Completed ballot papers are to be mailed or delivered directly to the Returning Officer, who will be responsible for the conduct of the election from the time of his receipt of the ballot papers.

7 Results of the ballot shall be mailed to each Branch Secretary, including the retiring Federal Secretary, and the Returning Officer's report will be printed in the next available issue of Journal.

8 The word 'branch' is used above as is defined

in AMRA Constitution, Section 12 (a).

9 No candidate for election to Federal COM shall accept nomination whilst holding an executive position on any State Branch or Sub-Branch COM.

10 The interpretation expressed above can, and will, be defended legally.

As reported in the last issue of Journal, the Queensland Branch held a most successful exhibition. That would have to be the understatement of the year.

A feature of their Exhibition was an N scale representation of The Central Queensland Main Line Electrification Project. Built by members of the Queensland Branch for the Queensland Railways, this exhibit is and will be supported by the QR with a two colour, A4 handout, which, on one side details the electrification project and, on the other side, gives details about the model, size, construction, operation, plus a quarter page devoted to the builders, AMRA Queensland Branch; the sort of advertising that would bring tears to the eyes of any advertising man. Congratulations Queensland Branch, that should really -

"Help AMRA Thrive in '85"

and beyond.

Regards to all.

Phil Kelly

***** FROM THE MANAGING EDITOR

The revised "Beginner's Guide" is now being typeset and I hope to have it printed in time for the NSW Branch Exhibition. As already advised in earlier Journals, the new Guide is a combination of the two earlier Guides issued by the Association with some additional chapters and some revisions to bring the Guide up to date.

However, the hobby of Model Railways is an evolving hobby with new techniques and technology being incorporated all the time. Any assistance that any member can give to either rewrite a chapter or to submit a new chapter for the next reprint of the Guide would certainly be appreciated.

I understand that stocks of the old Guides have been exhausted and there may be some delay in new members receiving the new Guide. I hope these new members will bear with us, but when we are using volunteer labour, delays will sometimes happen.

I said at the beginning of this year that I would only be prepared to be Managing Editor for a period of two years. This would take me up to the end of next year. I am finding that I am having to devote more of my time to printing and someone else will need to take on the roles of Managing Editor and Layout/Paste-up Officer. The layout of the Journal can take up to 20 or 30 hours per issue, so if anyone is thinking of taking over, be warned that a fair amount of time is involved. However, I am sure that whoever does take it on will find it enjoyable and rewarding.

This may be food for thought for our next Federal COM.

Roger Lloyd

***** FROM THE REGISTRAR

FAMILY MEMBERSHIP

The Constitution and the Application form states that a Family member is the Spouse or a student child of a Senior member.

The minimum joining age is TEN years, but notwithstanding these statements, we still receive applications for children under 10, adult brothers and sisters, even had one for an uncle and aunt. It would help if people would read the application form before filling it in; the person handing them out should be acquainted with the information as well, thereby preventing holdups in the processing when information received is incorrect and has to be referred back to the sender.

Another matter that often has been raised, is to notify the Federal Registrar direct when changing one's address. The Registrar's address can always be found on the Credits page of Journal. Notifying anyone else can lead to a missed Journal.

Any Journals returned marked 'Left this address' or 'Not known at this address' can lead to the Association having to pay the full postage rate for the returned article, depending on the whim of the Post Office. A little thought to this matter could save a lot of unnecessary work on our part.

If you receive your new membership card shortly after posting your subscription, this will mean they are coming in at a good rate; if not, they go out when a sheet listing 70 financial members is filled. This sheet then goes to the Treasurer, along with the subs, which enables him to do the banking.

DO NOT FORGET, 31 OCTOBER 1985 IS THE LAST DAY TO BECOME FINANCIAL FOR 1985/86.

Norm Read

A.M.R.A. MERITORIOUS AWARDS

UP TO 1985

Bob Gorrell	1965	Bill Moorehouse	1978
Ivor Bunker	1967	George Bray	1979
Alan Dowel	1969	Arthur Hayes	1979
Stephen Suggitt	1969	Simon Mead	1979
Rex Little	1970	John Harry	1980
Norm Read	1970	Harold Warren	1980
Mal Baker	1971	Cec Wall	1980
Glyn Shepherd	1971	Jack Eagles	1980
John Sneddon	1972	Ted Thoday	1981
John Dunn	1972	Audrey Cornish	1981
Graham Larmour	1972	Ray Brownbill	1981
Ken down	1973	Bob Edwards	1982
David Ellis	1973	Graham Watson	1982
Arthur Robinson	1974	Steve Malone	1983
Bruce Lovett	1974	Alan Porter	1983
Eric Doherty	1976	Stuart Westerman	1983
June Larmour	1976	Bob Wardrop	1984
Fyfe Thorpe	1977	Gordon Duncan	1984
Eric Lyon	1977	John Hill	1984
John Skilton	1977	Corinne Bunker	1984
Keith Robinson	1977	John Martin	1984
Dot Treseder	1978	Keith Wilcox	1984
Tony Gray	1978	Norm Chapple	1985
Jim Christie	1978	Roger Lloyd	1985
Jack Parker	1978	Val Hogan	1985
Rup Ackland	1978	Bob Mawson	1985

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CLASSIC QR RAIL MOTORS

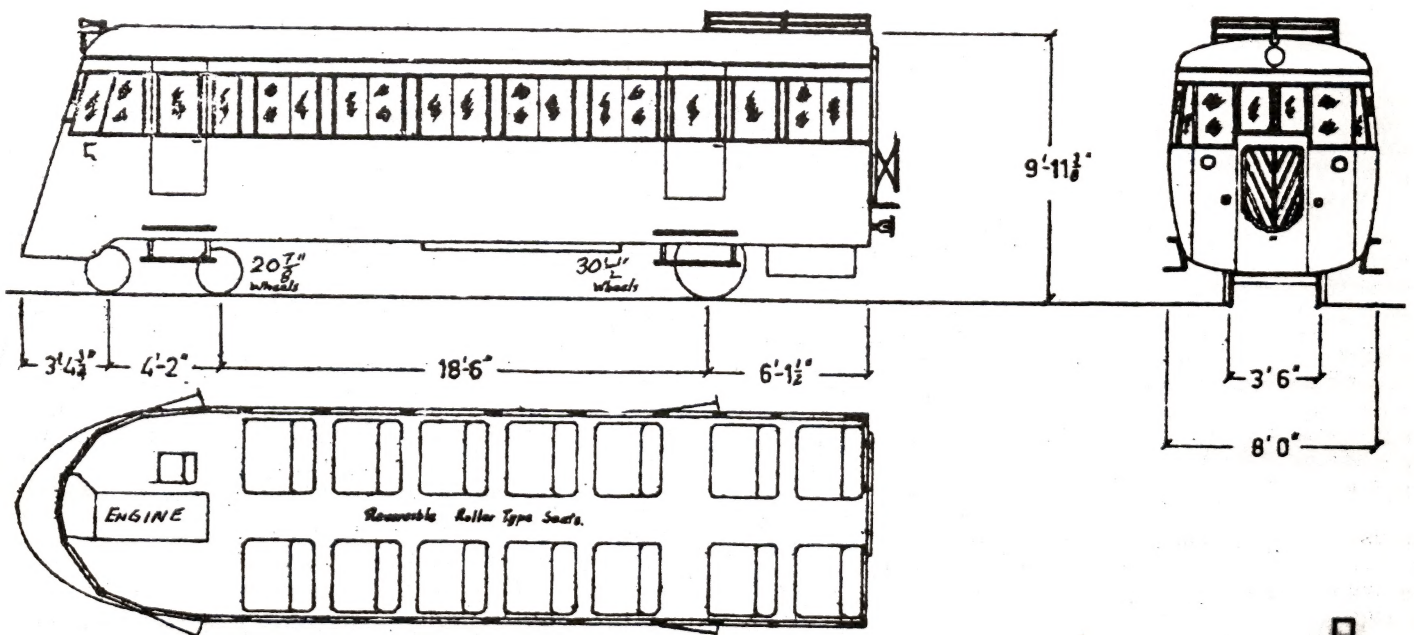
by S Malone

This month we take a look at one of the 'streamlined' QR rail motors; this one powered by a 120 hp Gardner diesel engine. The running numbers are 85 - 92. RM93 is externally the same and this type is still in service, working the Gulflander service on a lonely line near to the Gulf of Carpentaria. Until recently, RM74 did the run, but needed a general overhaul and RM93 did a swap by road and took over the service. To cater for the tourist traffic, a 1800 class rail car trailer was also sent to the line.

A motor-rail service is available and the Gulflander is quite a sight with RM93 leading the 1800 class trailer (much larger in every way), followed by a four-wheel open wagon for 'roadside' goods traffic and a flat wagon with a campervan for the motor-rail service. RM93 originally remained in service only because it was the Central division's inspection car, based at Rockhampton.

The model of this type of rail motor would be interesting to build, due to all the curves in the body work.

Our thanks to Mr K McDonald who drew the plan - borrowed from A Robinson's collection.



HYLTON

PART TWO – CIVIL ENGINEERING

by Paul Kehoe ©

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PADBURY (as described in Part One of this almanac of events) most certainly offered the requirements of simplicity and the prototypical features that I had laid down as being essential to the construction of a working 18.83 mm gauge model. The problem was how to alter and adapt these to fit the other major requirement, small and manageable size?

The existence at PADBURY of a loading wharf was the obvious springboard for the inclusion of the more usual facilities which are such a feature of small English country stations - or, rather, were before 'progress' all but wiped them out. But, before it was possible to include these features on a scale plan, it was necessary to adapt the plan of PADBURY to fit the determined available space.

And before that, it was necessary to establish a history for the station and a geographical location.

PADBURY is located in the south of England many miles away from my old stamping ground. I had no sense of atmosphere for the location, I couldn't directly relate to the area of England it represented, so the first thing to do was shift it all north.

I eventually decided on that stretch of the West Coast Main Line between Preston and Lancaster, then narrowed this down to an area between the villages of Brock and Garstang and Catterall, thus siting my fictional station on a loop some eight and three quarter miles north of Preston. The name HYLTON was decided upon after an in depth consultation with my son who gave the matter deep thought in between tracks of the latest THE WHO album he'd just acquired - such are the relative importances of a 16 year old!

The station was to serve a small village tucked into the lower folds of the Pennines, a village which was about a mile and a half inland from the main line and, therefore, quite isolated in that part of the country. The history, as displayed at the exhibition for the information of the public, read as follows:

"HYLTON is a small village just north of Preston in Lancashire, England. Its only claim to fame being its hotel which accommodates those hardy souls who, leaving the flesh pots of London far behind, like to roam the Pennines shooting things."

(At the exhibition, one lady was heard to ask; "What things?" The answer tendered was Yorkshiremen, but you'd have to be English to understand that!)

"In winter the hotel is a refuge for spinster ladies and recluse bishops who seek the isolation to celebrate Christmas in indulgent self-denial."

"The village and hotel - which boasts a spa - are situated a half mile or so from the station, a station served by a single line built in 1893 by the London and North Western Railway."

"The sparcity of habitation - and, thus, custom - precluded the usual cluster of sidings, with just the single siding originally laid to service the requirements of the permanent way gang."

"Gradually, after some pressure from a local

landowner who just happened to hold a fairish parcel of shares in the LNWR, the cattle dock and small loading/parcels platform were added, along with the level crossing and, finally, the signal box which allows for permissive block working."

"Despite the appearance of efficiency and the promise of activity, the business of the line is carried on in the most leisurely fashion with nothing of the haste and bustle of other, less personalised, centres of railway importance."

"Life, at HYLTON station, is a very relaxed affair!"

There you are - the model and its environment, purpose, reason d'attaire, size atmosphere and probable traffic patterns all neatly summed up.

So, a location, a history and a fair indication of the buildings and structures which would be required.

The serious planning began with the old adage firmly in mind that time spent in planning is rewarded ten-fold in the execution of the model. The time expended with pencil and paper soon revealed that to model PADBURY as HYLTON as it stood would not be practical on a baseboard only 300 mm wide. The problem was associated with the fiddle yards.

Although preferable, traverser style fiddle yards were impractical from a time factor and did not comply with the requirement of absolute simplicity. Traversers are intrinsically more complex to produce than the simple sector plate, so sector plates at both ends were required to provide through running. But such short sector plates, a mere 500 mm long, coupled with the angle they extended when turned determined that the main running line must run down the centre of the main baseboard.

The narrowness overall of this baseboard showed that, with the line running down the centre, the space taken by both the platform and the station building precluded the possibility of the siding running behind them, as at PADBURY, forcing the adoption of the siding to run in front of the station. From an exhibition point of view, this arrangement was, perhaps, more satisfactory in that nothing of the movement of the trains was hidden from view. Further, the space saved by not having to run behind the platform allowed for the correct siting of the home/starter signal, the signal box itself, as well as the road, level crossing and a small creek to pass under the railway.

Obviously there was no room for anything not directly associated with the station, not in an area only 1300 mm x 300 mm, but the correct siting of the various component parts within the station boundaries, the attainment of the correct relationship between these parts, enhanced the atmosphere and helped to create that elusive air of reality.

With a scale plan eventually to hand, the construction began with, of course, the baseboard. Absolute conventionality was employed to the unfortunate detriment of the finished layout. 40 mm x 20 mm pine framing was glued and screwed to form an oblong of 2300 mm x 300 mm, with spacers set 500 mm in from each end to support the business edges of the sector plates. The spacers were drilled to accommodate wiring, but no other strengtheners were employed, the small size of the unit suggesting that any warping of the main frame would be minimal if at all once the full

width 12 mm chipboard top was firmly nailed into place.

This top formed a solid, complete section which had a small area jig-sawed out to accommodate the creek and pond. Once again the small size made an open top baseboard a somewhat pointless exercise, although it is to be recommended for alternative designs.

By purchasing an 1800 mm length of 12 mm chipboard and cutting off 500 mm which was then halved longitudinally, I obtained not only the baseboard for the 'on-stage' area, but also sufficient for both sector plates, neither of which was additionally strengthened. It would seem that there was some ingestion of moisture causing the unsupported chipboard of these sector plates to ever so slightly warp. The result of this being a not infrequent derailment problem at the join between fiddle yard and main baseboard.

Whilst in the coarser scales, such minor warping may not cause the same effect to the same degree, in 18.83 mm gauge it is tantamount to disaster and doth lead to much cursing and the development of wrath!

It also leads to the adoption of ply for future baseboards, not only for the tops, but for the side framing as well. One's initial reaction on considering ply is that it is considerably more expensive than conventional methods, an impression not supported by investigation.

If ply is used only for the top of a baseboard and pine framing for the main structure, then the cost of the ply is an extravagance. But, if ply is used throughout for framing, for cross members and for the top, the cost would appear to be more than comparable with that of a pine and chipboard combination. However, a full evaluation of ply is a matter for the next layout and the future.

The chipboard surface of the main baseboard for HYLTON was 'squared' to comply with the plan as drawn on graph paper (at a scale of 1 mm = 5 mm) and the track plan was then transposed to this. 3 mm cork with the edges chamfered to represent the tamped edged of the ballast was glued into place using full strength PVA and weighted with ice cream containers full of water until the glue had completely dried. The cork was then lightly sanded to level it off, after which the track centre lines were redrawn onto the cork.

Construction of the trackwork began, as it always should, with the pointwork. A template from the range available from THE SCALEFOUR SOCIETY which was a part of the initial package sent upon joining (along with some dozen other templates, the manual and back copies of SCALEFOUR NEWS) was chosen, in this instance the one which best fitted the bill being the B7 Left. It should be pointed out that this had been chosen at the planning stage and was not simply an arbitrary decision made at this juncture. The B7 is a point 300 mm in length with a quite gentle diverging angle of 1:7.

With hand constructed track from supplied templates, the templates are for a given angle and a given planing length, but, with the prototypical tables which are available, it is possible to quite simply determine the geometry and measurements and, thus, draw out pointwork for any situation encountered by the prototype.

To degress for a moment, HYLTON is a prelude to the construction of a near-as-possible scale model of a small station in north Wales, DYSETH. The original plans, copies of which I have been able to obtain, show that the London and North Western Railway constructed three curved points at DYSETH, all of 90' in length with two being 'left' points and one, with a sharper curve to

the splice (diverging), rail being a 'right' point. The reduction of these from the information available (luckily the plans included a scale from which one could measure, copying variations or shrinkage being common to both the scale and the plan itself) has proven to be both a fascinating and rewarding exercise, culminating in the drawings for these three points now existing to 4 mm/ft scale, 18.83 mm gauge, and ready for construction to begin.

One of the myriad of major problems with the rtr set-track points, even when used with flexible track, is that the geometry of the point is a part of a circle, a fixed radius. Designs which use these points are simply extensions of this radius and, therefore, eliminate with one stroke any possibility of their being anything more than simply a passing reference to the prototype.

I would submit that the ease of availability of such 'toy' equipment might be a major factor in the promulgation of the widely expressed notion that model railways is really just grown men playing with toy trains, sentiments not expressed about our contemporaries in the model ship and aircraft fields of study and practice. If, perhaps, more modellers began to model, instead of just clearing the expensive shelves of the shake-the-box-and-have-an-instant-railway mentality trade, then, perhaps, a little more credence might be afforded us.

But, back to HYLTON....

With the point template firmly glued to a piece of flat, melamite faced chipboard, the crossing timbers (also SCALEFOUR SOCIETY as is all of the track making components and gauges) were marked off, cut to size and drilled to accommodate the rivets to which the rail was to be soldered. This method of track construction, the Joe Brook-Smith method, is easy, simple, accurate and allows for adjustment should any be required after the unit is made up.

Taking what might, at first, be regarded as a step into the past, I had elected to construct the track with steel rail, abandoning the widely used and highly regarded nickle silver.

Why?

The SCALEFOUR SOCIETY has recently introduced correctly scaled code 70 steel bullhead rail into the stores, the introduction following a flurry of letters following the report of one member of the success he had enjoyed with steel rail that he had caused to be specially drawn.

Other members concurred that the success had been repeated on their models where steel wheels on steel rail appeared to have self-cleaning properties which confine the track cleaning blocks to the back of the cupboard never again to see the light of day. As I write this, the Perth AMRA exhibition is a week past. Prior to the exhibition, HYLTON had spent its life not far from a generally open window which looks out onto a garden which backs onto a freeway, the air, therefore, being endowed with all the muck that our inefficient infernal combustion engines can chuck out.

Prior to the exhibition, the rail had been cleaned with a fibre glass brush, but that was 2½ months prior to the exhibition! All that had happened after that was the daily running, for about five minutes, of one of the locomotives over the trackwork. I use Kean-Portescap RG4 motors and an ECM controller in order that prototypical smoothness can be obtained, particularly non-stallable smoothness at speed slightly below 'is it moving?'. I was more than pleased, therefore, to see, at the exhibition, everyone else determinedly slaving away with their Peco blocks whilst I merely wiped the worst muck off the rails

with a Kleenex tissue and then enjoyed a day's running under exhibition conditions without problem or recleaning.

It was interesting to note under a small magnifying glass that the effect of the steel wheels on the steel rail is to produce that same polish which can be observed on the prototype. As far as I am concerned, steel has won the day over nickle silver and, if rust should raise its prototypical head, a quick rub with a fibre glass brush banishes it and restores running to its former excellence.

Back to the pointwork - double-sided tape was laid onto the template and the rivetted crossing timbers were placed in position on this. The crossing nose (or vee or, if you must, frog) was constructed by correctly splicing together two pieces of rail and was then soldered into place. Following my usual practice, which is a slight departure from the usual instructions, the stock rails were added and then the combined wing/closure rails.

My first attempt was a total failure, caused by my approaching the task in the same, somewhat cavalier, manner I had adopted for the construction of EM gauge pointwork where one can, within reason, construct it all and then fudge it about to make it work.

This doesn't apply to 18.83 mm gauge!

The relationship between the knuckle of the wing rails and the point of the nose of the crossing is absolute and I discovered that tack soldering the knuckle area to the rivets until smooth transition was achieved was required before the whole shebang was soldered up properly. This even despite the fact that check rails in 18.83 mm gauge are not cosmetic, but are also accurately placed to hold the wheels firmly in position.

So, care and attention to detail are the cornerstones of successful point construction, but the resultant smooth passage of both locomotives and rolling stock is reward aplenty for the additional time expended.

The point blades were filed with the correct planing and soldered to their relevant rivets, with an almost imperceptible recess being filed into the stock rails to allow the tips of the blades to sit snugly against the rails and not protrude inwards from the running face of the rails, thus eliminating any possibility of transitional jarring which might cause either direct derailment or the wheel to ride up over the top of the rail. Both the full point and the catch point were operated by the rod-in-tube method, a point motor being at odds with the 'simplicity' requirement.

PVA glue was spread around the area the point was to occupy, not too thin a coat and not too thick, just enough to hide the cork. The completed point was placed carefully into position after holes for the electrical wiring which had been soldered to the rails had been drilled through the cork and baseboard and the wires passed through these holes.

Remember that the track centre lines had been drawn in pencil on the cork and these were used to ensure that the point was set exactly into position according to the plan. Small drawing pins were used to hold the point in place, that is, to eliminate any lateral movement, not to compress it into the cork. Specifically placed weight does that.

Departing from my usual procedure, whilst accepting that the whole exercise was, in many respects, an experiment, I then scattered granite ballast over the entire area, the PVA still being wet. This was, as I shall shortly explain, another mistake.

Carefully placing short lengths of scrap pine over the trackwork, I collected my faithful ice cream containers of water and placed them carefully onto the wood, thus providing an even weight to hold the crossing timbers firmly against the cork until the glue had completely gone off, allowing 24 hours in a Western Australian summer and 48 in winter.

A lesson was well and truly learnt from the distress which was apparent, along with some choice anglo-saxonisms, when the water and the wood was removed. The last two sleepers on the diverging road were proud of the cork bed by upwards of a millimetre, presenting a virtual ramp to the passage of the trains. The cause was ballast. A grain or two had managed to get in under the sleepers before the weight was added and had lifted them. Never again will I place ballast on wet PVA when track is being laid, but always afterwards using the tried and true method of 50/50 water and PVA with a drop or two of washing up liquid dispensed with the aid of a medicine dropper over ballast which has been brushed into place. A little more tedious, perhaps, but worth not stuffing up trackwork over which one has slaved for four or five hours to create. The result of all of which was the enforced packing of a short length of track beyond the point in an attempt to level the trackwork. It didn't achieve the desired levelling effect, but there was a positive bonus in watching the suspension on both locomotives and stock working overtime to accommodate, successfully, the sudden and rather dramatic variation in what should have been a flat world!

The catch point next came under the baleful eye of the chief ganger and was constructed using just the blade section of a 1:5 point template. Needless to say, this was not ballasted until after the rest of the trackwork had been laid!

Plain track construction was straightforward. I elected to use the pre-grouping 9' sized sleepers which, like their post grouping counterparts, come ready drilled to accept rivets. They were made up in the simple track making jig described in the EM Gauge Society manual.

To ensure that there are only minimal problems associated with the distribution and collection of electricity, I always drop wires through the baseboard from each piece of trackwork, the wires being soldered to the underside of the rails. The points, of course, requiring additional wiring to accommodate polarity changes across the common crossing.

Some of the track in the siding is curved and was made up by soldering one rail into place on the jig, laying the half section on the track bed and securing it temporarily with double sided tape then, using gauges, soldering the other rail to the sleepers thus not only correctly curving the rail but also providing, through the gauges, a uniform gauge widening which is required to allow the wheelsets which, of course, want to run in a straight line, to follow the curve as the wheelflange dictates.

Rail in the fiddle yards was constructed by using only every other sleeper.

With the running rails thoroughly tested, white metal cosmetic chairs were added by gluing them to the sides of the rails, then the track was ballasted.

Future track is to be constructed using the functional white metal chairs manufactured by MJT. These not only eliminate the soldering (except for the end sleepers on plain track and important parts of points), but also incline the rail correctly at an angle of 1:20 to the vertical to match the correct coning of the wheels which are available for 18.83 mm gauge.

The cosmetic variety which I used as described above on HYLTON really do stretch one's patience to the limit!

As the layout was to operate under permissive block regulations, I installed three section switches, two on the main line and one on the siding, thus permitting more than one-engine-in-steam. This was justified by the location being usable by the traffic controllers as a loop to allow expresses or other more important trains to use the main line whilst slow goods or light engines could be safely routed out of the way.

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WEATHERING STRUCTURES

by Ian B Howarth

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PROLOGUE

Weathering models? It's too difficult! I don't know how to do it! Why spoil my hours of work dirtying this shiny example! To my mind nothing looks so unprototypical as models that have just come out of the 'showroom'; or those that have been sprayed with 'glunk' so that they look as though they have just passed under a herd of elephants. Strange as it may seem, a majority of exhibition layouts fall into this category - the ones I have seen over the years at least.

Anti-weathering needs to be overcome! I hope that this short article on weathering will encourage modellers to at least have a go and experiment.

This fact of model railways, perhaps causes one almost as much heartburning as choosing scale, gauge, etc, in the very beginning of entry into the hobby. How often does one spend hours and hours constructing a pet project; be it loco, rolling stock of structure and then try to blend it (read weather) into the overall scene?

Get out the air brush, charge it up with your favourite grunge and go for your life. Grab a brush and open a bottle of Floquil mud? Or what?

I've probably tried all these methods and the results haven't been encouraging. Sure, some have been okay, but the rest have been YUK in the next morning's sunlight! An easy and most enjoyable weathering method is to use chalk - better still, good quality pastels; the results obtained are outstanding.

The Reading List at the end of this article should expand your interest and dexterity no end. My method, detailed below, is from MY experience - yours no doubt will be different and most probably far superior!

MATERIALS USED

The following materials should be available from a reputable art supplier. My source here in Port Macquarie is an art gallery - they also supply artists' requisites and if not in stock, they can order what one needs.

Gumbacher

1 Colour Compass (B425) This is a most necessary aid before attempting any colour work - whether it be painting structures, rolling stock, people, particularly backdrops, etc. It covers such areas as colour mixing and selection, colour theory and harmony, and flesh colour mixing.

2 Artists' Soft Pastels (00/48). This set of 48 colours is housed in a plastic container

All the fiddle yard roads were also switched, allowing maximum flexibility of the available track through selective powering.

Being satisfied with the running and performance, with the electrics checked out and with the point working admirably, the common crossing polarity being switched by a simple cross piece on the push rod connecting with one of two screws, one fed negative the other positive, the time had come to turn my attention to the scenics, the buildings and the landscape.....

for ease of storage and use. The colours contained in the set are ideal - yellows, oranges, reds, blues, greens, browns. They are top quality pastels (at a price!), are soft and very easy to apply.

3 Gamma Gray Layout and TV Chalks (665 Natural Grays). This is a set of 12 'hard' pastels - somewhat harder than the Soft Pastels above, but can add a subtle touch when needed.

Weber Cosello (WCC)

1 Alphacolor 24 Artists' Pastels. This set has a broad range of colours, more brilliant than the Grumbacher set, but nevertheless compliment them. They are very handy for highlighting a particular feature.

2 Alphacolor 12 Earth Tone Pastels. This set ranges in colour from an off-white to dark brown, with subtle tonings in between. They are very handy for rolling stock, but that's another story.

3 Alphacolor 12 Hi-Fi Gray Pastels. This is a set ranging from white to black. They are excellent for blending colours to achieve that 'been around the railways for years' look.

The next item is available from any Chemist, Supermarket and YOUR WIFE! Although very soft and of distinctive smell, they DO work. The item - the good lady's eye shadow and make-up blocks! The colours available are restricted, but do have a use in our weathering art. The bristle brush supplied is not too bad to use, but perhaps not stiff enough for our purposes.

The next two items are MOST IMPORTANT:

1 No 4 bristle brush (or fitch) - this brush has short, stiff bristles and is ideal for pastel application to models. The brush must be of good quality, which means paying a price for it. I have been using mine for some years and is only now approaching the shaggy dog variety.

2 Testors Dull-Coat - either in a pressure-pack or for use with an air brush. The Dull-Coat gives your pastel weathering a protective finish and thus only a very light coat is required. Artists' Matt Medium possibly could be used on large surfaces (such as scenery), but I've not used this item at all.

METHOD

Simplicity itself!

Some experimentation and fiddling around with colours will be needed, but not to fear - should you overdo it or put on the wrong colour/s, simply wipe off, brush off with a clean brush or go over it with the new colour of your choice.

Your structure should first be air brushed or carefully brushed with a colour LIGHTER than envisaged. It is far easier to darken the structure with pastels than to lighten it.

A range of real structure weathering or, better still, a colour photo of the prototype

can be of tremendous assistance. Commonsense is the rule - under do it rather than over do it. You can always add darker tones to your weathering at a later stage, even over the protective Dull-Coat finish.

Now to the nitty-gritty. Once the structure has been painted in its base coat, determine what pastel colours you are going to use. Always commence with the darkest colours and add successive lighter ones. Pastel colour is applied to the model with a 'charged up' brush in a direction consistent with the supposed elements that have aged your structure. To 'charge up' your brush, simply use a light scrubbing action on the desired pastel colour until you can see the bristles holding minute particles. Now add this colour to your structure, concentrating on a small area at a time, blending into the surrounding colours to obtain weathering to your satisfaction.

I always leave my structure for a couple of days and then come back to have review of my efforts. Usually, additional colour/s have to be added; this process continues until you are completely satisfied. Once satisfied, a very light spray of Dull-Coat diluted with approximately 25% thinner is applied to the structure. If using a Dull-Coat pressure pack, hold the can about double the distance recommended from your structure. However, some of my structures have not been given this protective coating, and no ill-effects have been encountered, even with constant handling. Some structures have even had additional weathering applied up to 12 months after the original pastel was put on.

SPECIFIC EXAMPLES

All structures were air brushed prior to assembly and weathering attempted when complete. Brief notes accompany each structure.

Bergs Station

Walls: Floquil - 50% tuscan, 25% rust, 12.5% Milw. orange, 12.5% reefer white; 20% dirty thinners.

Roof: Floquil - 50% reefer white, 25% grimy black, 25% rust; 20% dirty thinners.

Windows: Floquil - 50% reefer white, 40% rail-box yellow, 5% reefer grey, 5% rust; 20% thinners. Overspray of dust.

Doors: Floquil - 50% railbox yellow, 12.5% grimy black, 12.5% reefer white, 12.5% rust, 12.5% GN grey/green; 20% thinners.

Mortar: Floquil - 50% reefer white, 30% reefer grey, 20% railbox yellow; 60% thinners. This dry brushed on and wiped with thinner dampened cloth.

The station was weathered using ordinary school chalk - black for most areas to give a grimy effect, red and orange to lighten some areas of brick. This was my first effort using chalk/pastel and was basically unsuccessful for two reasons:

- 1 The walls and doors were painted too dark.
- 2 I used chalk instead of pastels - impatient me!

I was waiting for the pastels to arrive, but the weathering urge became too great. I won't make the same mistake with the next Bergs Station which I intend to modify considerably.

Sarmod SAR Cast Iron Water Tower

Base colour: Floquil - weathered black, with a trace of rust; overspray of dust and grime - very light.

Water in tank: Inside of the tank was painted

using a wash of artists' water colours - mainly green, with some brown and white intermixed. The water was represented using a first pour of British Paints Timberline Gloss to a thickness of 2 mm and allowed 10 days to dry. Another coat of 4 mm thickness was poured in and this took several weeks to dry out.

A deep brown pastel was used to heavily weather the model - this representing years of rust. Some areas were treated with a light grey to represent oxidation. Both areas were blended where necessary.

BGB Tantanoola Goods Shed

Roof: Testors - silver, gold, metallic copper, grey - a mixture of unknown percentages.

Doors, Gutters, Downpipes: Floquil - Bergs Station green.

Walls: Humbrol 71.

Trim: Floquil - reefer white.

Stone Foundations: Testors - 50% 1163 grey, 12.5% 1103 red, 12.5% 1151 metallic copper, 12.5% 1146 silver, 12.5% 1149 black.

Mortar: Bergs Station Mortar

Platform Supports: Floquil - SPLK dark grey.

On this goods shed, I used a mid brown to streak the roof to represent rust, with some lighter areas blended in. The walls were treated using light browns and greys blended to show rusting with an over colouring of white to ground level near the rear door to represent water action of a broken gutter. On this model the doors are in various open positions and where 'human' hands have continually opened and shut them, a brighter green was used to show use. The platform was treated with light and dark browns to show wear and tear. Overall, the pastels bring out the fine details of the castings in the model, particularly the corrugated iron walls and roof.

BGB Condah Goods Shed, SJM Signal Box

Both these models are painted similarly in colour to Tantanoola. Condah is heavily weathered, using stronger browns and oranges to show the ravages of rust around and on the guttering and downpipes. On the walls I used far more white to give a faded look. Some grime from the steamers is yet to be added. The Signal Box shows age on the roof by use of a dark orange, the walls are pretty tatty by using mid greys. The weatherboard wall construction is really highlighted now on both models.

Tyco General Store (7798)

This structure is currently undergoing 'Australianising', and I hope to complete and write about it soon.

FURTHER READING

Model Railroader - February 1984 - pp64
December 1982 - pp74

Railroad Model Craftsman - February 1980 - pp54

NMRA - March 1983 - pp36

PERSONAL CREDITS A LA KEHOE

Written by Ian B Howarth, Port Macquarie

No previous published works.

A dedicated Educationalist.

A Model Railroader since 1954.

I buy Australian made products.

Preferred scale - HO

AMRA IS GREAT!

THE 29TH ANNUAL CONVENTION AUSTRALIAN ASSOCIATION OF LIVE STEAMERS

by S and D Malone

The 29th AALS Convention for 1985 was held at the Lake Macquarie Live Steam Locomotive Society's track at Edgeworth near Newcastle, New South Wales. The LMLSLS has an extensive track network in $3\frac{1}{2}$ ", 5" and $7\frac{1}{4}$ " inch gauges. The $3\frac{1}{2}$ " gauge track is a separate elevated system and is one of the best $3\frac{1}{2}$ " tracks in Australia.

Over 8000 feet of 5" gauge ground level track is available in quite a complex, at first bewildering, arrangement. 1200 feet of $7\frac{1}{4}$ " gauge track is dual gauged with the 5" on the 'outer' track and there are plans to extend the $7\frac{1}{4}$ " in the future.

The overall track plan is quite interesting and the accompanying diagram will help to understand the network.

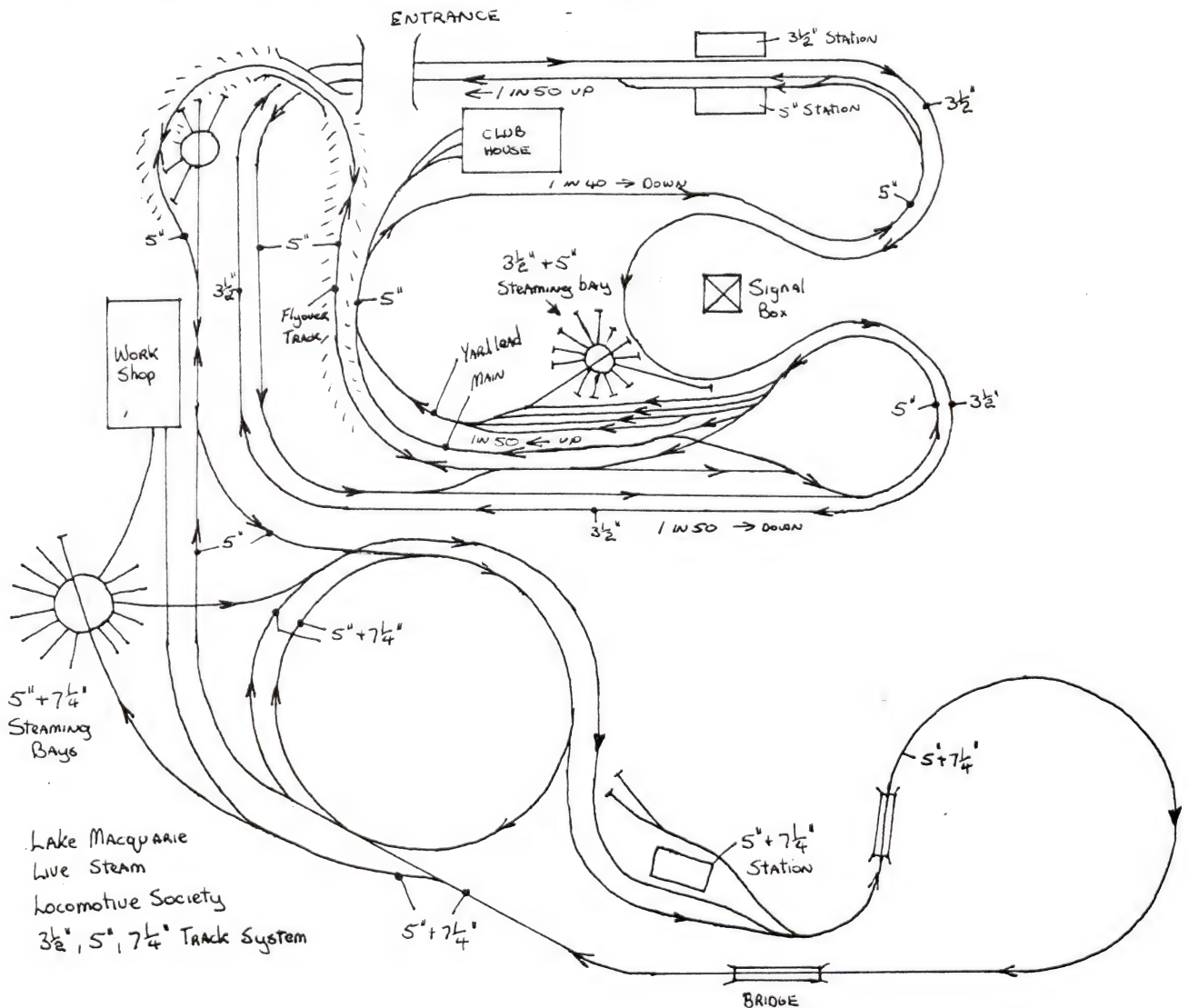
Basically, there is an 'inside' section which has the elevated $3\frac{1}{2}$ " and 5" ground level tracks in parallel for most of the route. Both of these tracks have a passenger station near the main entrance. The 5" ground level has a yard and a lead to the turntable and the steaming bays in the middle of this area. The signal box controls all signals and some points in this area. Point motors are a motor drive set up, similar to those in full size and model electric railways.

From the inner 5" gauge circuit, one can 'flyover' the 5" and $3\frac{1}{2}$ " tracks near the bridge at the entrance and visit the 'outer' system of



From Queensland, a $7\frac{1}{4}$ " gauge QR PB15 4-6-0.

tracks which are mainly 5" and $7\frac{1}{4}$ " dual gauge track.



Two more turntables with loco preparation areas are available in the outer and has an impressive traverser arrangement to assist off loading the larger 5" and 7½" locos from road transport vehicles.

The other turntable for 5" is positioned near the flyover which is used by electric or non-steam locos.

The Convention was very well attended by enthusiasts, all States of Australia being represented. Over 120 locomotives were booked in, ranging from the plain and simple to the magnificent masterpieces. The most numerous locos were of 5" gauge following the NSW prototypes.

Many camped on site, making use of the pleasant surroundings that this Club has. Trains ran every day from 6 am till 9 pm or later.

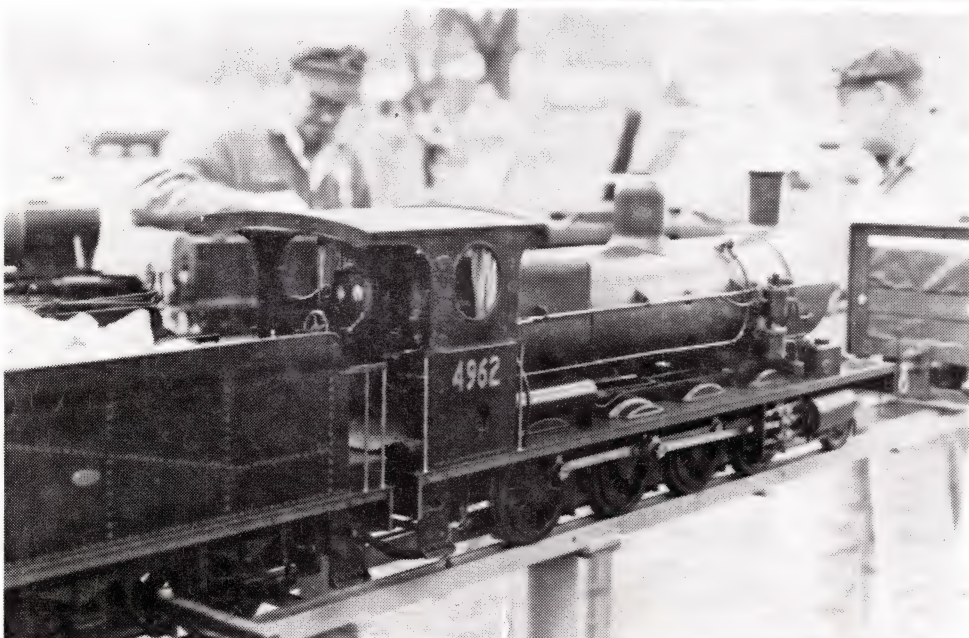
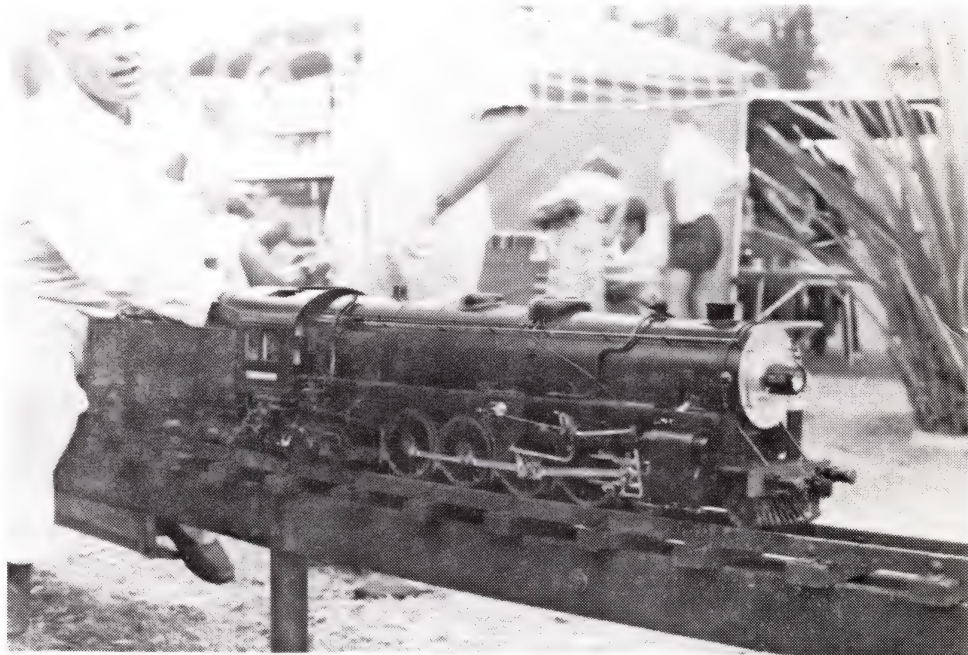
The main day was Easter Saturday where the official guests opened the new outer section on a train hauled by two 5" gauge locos - an English single Sterling and a NSWGR 3801.

The weather was fine for the Convention and generally speaking the event was a total success, a credit to the LMLSLS. The LMLSLS is positioned off Velinda Street, Edgeworth, and has running days on the last Sunday afternoon of each month.



Hand cars were a popular item with the young.

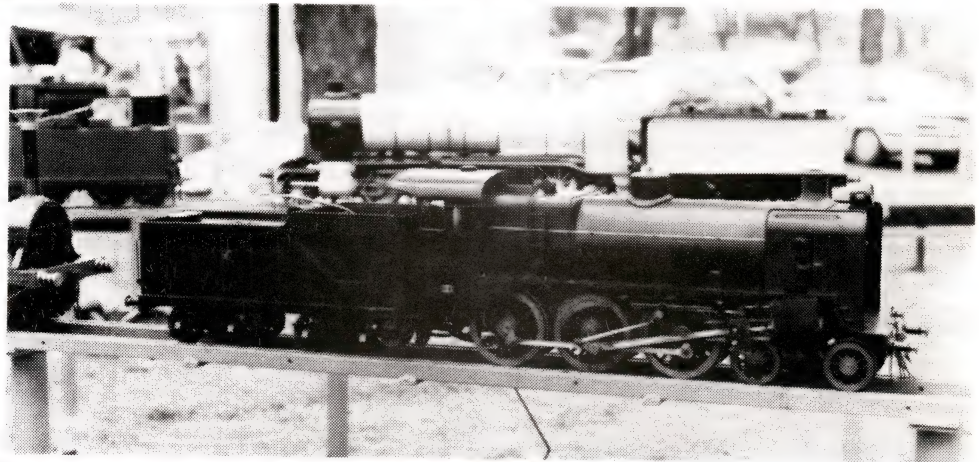
A 3½" gauge South Australian 500 class with operating booster is over 20 years' work for a Gold Coast modeller



Almost a NSW 50 class? Kit bashing in 5" gauge. This fine loco used to be an English 0-8-0.



5" gauge NSWGR C38 4-6-2 and proposed C39 4-8-2 roll down the grade past the clubhouse.

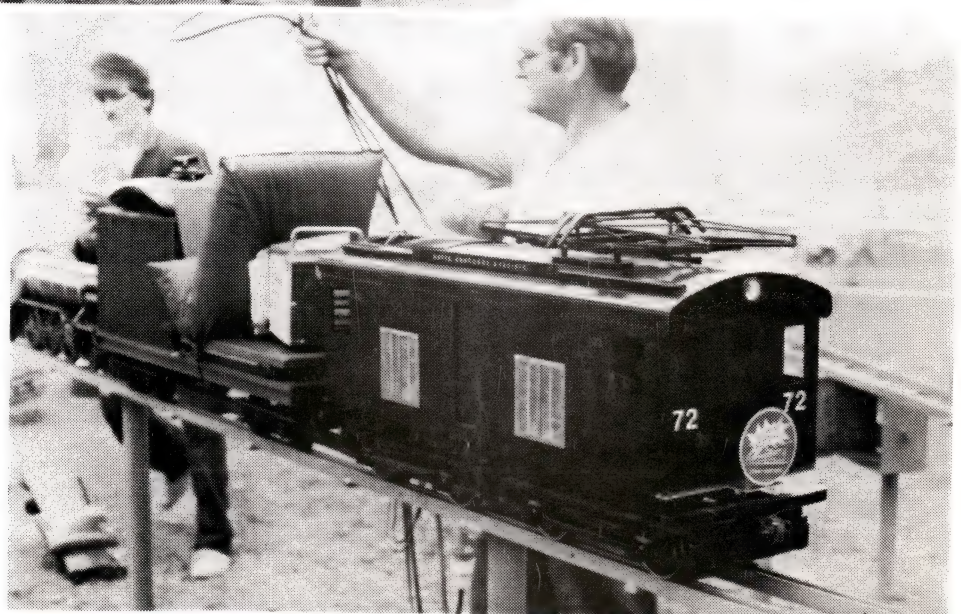


A 3 1/2" gauge VR A2.



A 5" Titfield Thunderbolt from Maryborough, Queensland.

Many electric powered models were present; a 5" Boxcab example is seen here.



THE TIDDLEYWINK COMPUTER

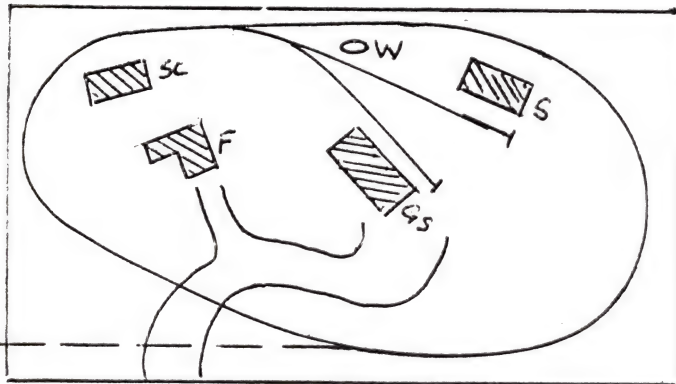
OR EVERYBODY HAS SPACE FOR AN OPERATING MODEL RAILWAY

by Richard Gutteridge

Although my name appears as the writer of this article, the ideas are not original as they are the brainchild of an English genius in the field of small layout design called Allen Wright.

Alan believed that to get the most out of any model railway and to retain interest over a long period of time, it was necessary to operate your trains in a definite and logical manner rather than just run them around a continuous loop. This is in no way denying that a continuous run is great for the times when you wish to give a loco its head and let it run, or you have made up a particularly fascinating looking train and you just wish to sit back and enjoy the sight of it snaking its way through your model countryside. However, a layout that offers a continuous challenge to operate will retain your interest long after you have completed the track and scenery to perfection.

Alan's original Wright Lines was merely a simple oval of track with two sidings on one side as shown below.



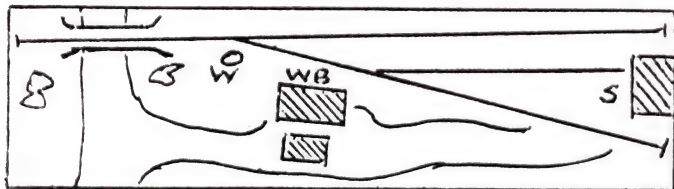
WRIGHT LINES 4'6" x 3'

W - water tank
SC - signal cabin
S - shed
G - goods shed
F - farmhouse

The oval was eccentric or egg shaped to reduce the toy train look and the space used was 4'6" x 3'. A board of this size can just be carried easily on its side, whereas a 6' x 4' board is much more difficult to handle. Try it. The dotted line represents a 'fiddle yard' which could be added later so that trains can be remmarshalled away from the siding area for added variety.

All very simple and childish did you say? And what about this Tiddleywink Computer anyway? Be patient for a little longer and all will be made clear.

Alan's next layout was 'Inglenook Sidings' on a board 5' x 1', also in HO scale.

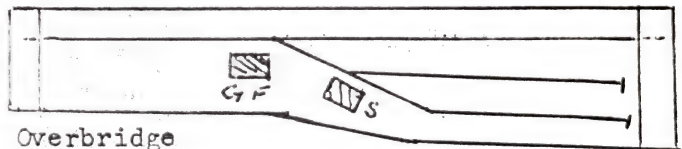


INGLENOOK SIDINGS 5' x 1'

W - water tower
S - shed
WB - weighbridge

This was a simple, isolated country siding. It was made to look very believable by attention to the scenery and kept uncluttered by the careful selection of the buildings and the surroundings. There was only a water tank for locos, a shed at the far end of the sidings and a weighbridge on the approach road that ran down beside the headshunt to an underpass. The headshunt was to some extent hidden by trees and bushes. The line was light in weight, uncluttered and could be operated by the owner's fireside or taken to exhibitions, where interested people could try their skills at shunting.

His next and current layout is virtually similar, but in 0 gauge and measures 6' x 16"! This must be surely close to the smallest 0 gauge operating layout ever made.



Overbridge

STEVENSON SIDINGS 6' x 1'4" Overbridge

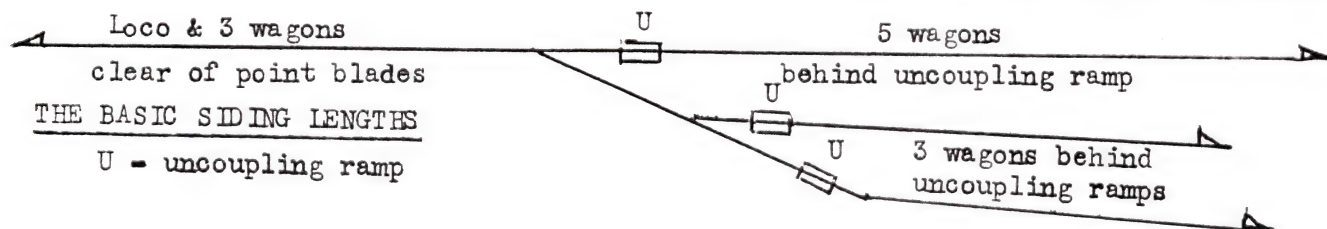
S - shunter's hut
GF - ground frame

This layout, Stevenson Sidings, represents a real-life locality near Newcastle, England, where there is a short length of open air line in a space between two tunnels on a dockside, goods only, branchline. Again the scenery is very simple and effective. A retaining wall and the backs of buildings on the back of the line and an overbridge at each end. The scene is given life by a track repair gang of slaters figures working against the back brick retaining wall. There are only two buildings, which cover point motors; these are a small ground frame hut and a shunters hut. Once again a simple, effective and uncluttered layout, which should keep operating interest for long after the basic line and scenery is built. If you take Stevenson Siding and reduce it to half its size for HO, a layout 3' x 8" could be built, in N gauge or HO, 18" x 4" only would be needed and in Z gauge perhaps 9" by 2", which is ridiculous. Actually these very basic dimensions should be increased by about 10 to 20% to allow the use of longer wheelbase locos, Stevenson Sidings only uses an 0-4-0 tank loco, and to allow extra clearance between tracks and scenery.

The three layouts described above have all been exhibited and have excited great interest when they have been shown. They are all ideal 'starter' layouts. Obviously every beginner in the hobby is not sure which way his final interest will lie, fine or coarse, US, Australian, British, Continental or whatever prototype or even what scale or gauge he will ultimately work in. With a simple layout such as this, he can purchase a small loco, a few goods wagons, a little track and a couple of buildings and try his hand at tracklaying, electrics, scenery and gain experience with relatively little outlay of money. At the end of a short period of time, he will have a complete, finished layout, operable as an entity on its own, which can readily be incorporated into a larger layout or can be kept as a fireside layout for winter nights. Even if the builder decides that some other aspect of model railways is more interesting, chances are

that this small complete first layout could be kept to run occasionally as a change. Alan Wright emphasises that everyone needs to get something running quickly to sustain interest and that even such famous model railways as the late John Allen's Gorre and Daphetid and Peter Denny's Buckingham Branch Line started as small complete layouts which were incorporated into the later larger layouts. It is obvious that Inglenook Sidings could be joined to the Fiddle Yard siding dotted track on the Wright Lines oval to make a simple and effective L shaped layout.

BUT, will these simple layouts maintain your interest over a long period? YES, if they are operated with some degree of challenge. This challenge is provided by the Tiddleywink Computer. The computer is nothing more than a few round disks marked with the reporting numbers of your goods wagons, or a brief description of them, and a shaker in which these computers are mixed. Consider the layout below, which is designed to accommodate one loco and eight goods wagons, the wagons all being of about the same length. The type of wagon and its number being painted on the counters.



In the layout illustrated, the headshunt to the left of the 'mainline' turnout accommodates a loco and three wagons, to the right of this 'mainline' turnout is space for five wagons, behind the uncoupling ramp. Each siding has a capacity of three wagons beyond the uncoupling ramp. Trains are made up of five wagons and are marshalled as directed by the Tiddleywink computer. If you wish to use this system for sidings on a larger layout, I suggest you put 'Limit of shunt' or 'yard limit' signs on the mainline at the distances shown to keep things from getting too simple. To use the computer, we place the eight counters corresponding to the various wagons into the shaker, give them a shake to mix them and draw out five. This gives the wagons to be marshalled into the train and their order in the train makeup which is, of course, the order that they came out of the shaker. As the siding and headshunt capacity is limited, shunting moves will rarely be straightforward and thereby lies the fascination for apparently it is possible to marshall these eight wagons into a five unit train in more than 4 million ways! Mathematicians can check this for accuracy, but obviously there are a hell of a lot of different possibilities.

On a larger layout the same system can be used, especially for local pick-up goods trains. The train can start its run at station A where its makeup and order of vehicles is determined by using the counters corresponding to the wagons at that station, the wagons corresponding to the non-drawn counters remaining at Station A. The counters corresponding to the wagons in the train move with that train to station B, where they are mixed with the counters for the wagons at that station and after shaking the desired number of counters are again withdrawn, and the train remmarshalled. If it is desired that certain wagons stay in the train, they are excluded from the draw as the system is quite flexible. The train and its counters then move on to station C, where the process is repeated and so on. If

a wagon is drawn to go to a siding where it is obviously inappropriate, say a refrigerated wagon to a bulk oil siding, then the counter is disregarded and another drawn.

I am adapting the Tiddleywink Computer system for use on my On2½ gauge layout, the Mount Walhalla Tram. Its use will be confined to the local pick-up mixed goods trains, but the timber and stone trains will continue to contain only timber flats or hopper wagons because I like the look of these solid trains of one type of car. I will also continue my practise of adding the odd wagon of urgent or perishable goods to the passenger trains. The computer should rejuvenate my interest in the general goods traffic, which has been becoming a little too much the same lately.

The above article was inspired by a brilliant series of stories in the December/January issue of Scale Model Trains, Volume 3, No 8. This describes all the layouts described above in much greater detail, with photos and has detailed instructions on how to build one of them, plus a description of a narrow gauge tram type loco to run on them. There is also an article on container traffic and the usual articles on detailing

rolling stock and scenery, as well as a fuller description of a Tiddleywink Computer.

It also occurs to me that a modeller already working in one scale, who has a slight inclination towards another scale or prototype could readily make a small layout like this as a form of light relief to his normal modelling. Actually I do have a few four-wheeled wagons and an 0-4-0 tank loco in a box under the workbench and a few lengths of Peco 0 gauge track somewhere from the old Crooked Creek Railway, so perhaps I'll buy a couple of peco points and try my hand at a version of Stevenson Sidings, so I can play trains inside the house, it's pretty cold in the shed during winter.

PLASTIC KIT CONSTRUCTION

by David Brown

Plastic kits have been with us for a good number of years - mainly British and American prototypes. Recently a good selection of Australian kits have come onto the market. Australian kits are presented in the same manner as British kits - injection moulded onto sprues - the modeller must separate parts from the sprue and remove all excess plastic. Most American kits, such as those by Athearn and Roundhouse, are of the 'shake the box and it falls together' type. All one has to do is snap each part together and screw the trucks (bogies) in place - all the major assembly is done.

Tools Required

The correct tools are necessary to build a kit successfully. I use an X-acto No 2 knife handle with several kinds of blades, an X-acto razor saw handle with two different blades, a selection of needle files and small number drills with a pin vise. I also use a fingernail file (emery board) for filing small parts.

Building Your Kit

Once you have purchased your kit, you carefully unpack it from its poly bag, what do you find? A piece of plastic sprue with sides, ends, a roof and other pieces attached to it by small pieces of plastic called feed pips. To begin, read the instructions. You must be certain that you know where each part goes; only then can you begin construction. As you remove the piece you require (you can cut it off with your knife, but it is a lot safer to saw it off with your razor saw, thereby making each job easier by cutting the part closer to the edge - it also lessens the risk of breakage), you must file off any of the feed pip left on the part, and any other extraneous plastic. Next remove the part that your original part fits onto (usually a side or an edge) and repeat the filing procedure. Everything must be smooth, with no bumps or ridges anywhere on the gluing faces, otherwise the kit will not assemble correctly. This is most important on four-wheeled kits; if you have a rough edge on sole bar assemblies you are going to end up with a wobbly wagon that falls off on the first curve. I assemble my kits on a piece of plate glass, ensuring a flat surface to work on.

You now have two parts ready to be joined. Have a dry run at putting the two parts together. Satisfy yourself that they fit closely, with no gaps. Once they fit properly, glue them together with a LIQUID type glue, such as Testors or MEK. Leave the tube glues alone - they ooze all over the place and ruin any surface they aren't supposed to touch. Liquid glues are much cleaner, last longer, and if you inadvertently get some on the wrong spot, leave it to dry, no damage done. Liquid glues weld the plastic together, creating a strong joint.

Now you can continue at your own pace. Take each step carefully, referring to the instructions if necessary; above all, make sure it all fits together neatly. You may find a kit with ill-fitting parts, an example being a BGM 'U' van. An excellent kit, but the roof needs a lot of filing to make it fit. I used an 8" file, needle files being too small for the job.

Well, you have finally put your kit together. You step back to admire your handiwork. You find the axle boxes have been put on the wrong way. Don't throw the kit at the cat - all you do is apply liquid glue to the joins, wait a few seconds, then carefully remove the offending part. Go and make a cup of coffee. When you have disposed of it and have stopped crying, everything should be smoothed off with your emery board and replaced correctly. Don't worry, we all do it at one stage.

Problem - you have a BGM GY kit with sloppy wheelsets.

Solution - take equal amounts off the ribs until they are 21 mm apart - voila! No sloppy wheels. This tip was given to me at a work night at the Club and is a complete success - one of the benefits of belonging to AMRA.

Before I go any further, none of what I have said regarding BGM kits (or any other brands) is intended to snipe at these people. I am extremely satisfied with the kits - sure improvements can always be made, but the kits represent excellent value for money - I only wish they would model NSW!

Painting

There are three ways of applying paint.

1 Hand painting (yuk!) on major assemblies is a no-no. You end up with a model that looks like it has been dipped in tar. I only hand

paint hand rails, small detail parts, or when I need to touch up minor blemishes.

2 Spray cans (not so yuk!) are reasonable, but must be used with care. The can must be shaken thoroughly, and light coats only applied. Wait 10 to 15 minutes, then apply another light coat. Never spray a heavy coat - running paint looks terrible, and you get the 'dipped in tar' look again.

3 Air brushing (definitely not yuk!) is the only really acceptable way. An air brush is a miniature spray gun that can be adjusted to spray from a fine line to a large area. Don't buy a cheap one - a few dollars more makes quite a difference, and practice with it. Make yourself familiar with it, and you'll have no problems.

Decalling

Decals (transfers) are the sheets that have numbers and emblems on them. They are included in some kits, but not all. Not only do BGM make kits, they also make decals, and (compliments at last) and very good ones at that. If your kit lacks decals, and BGM makes the correct type, then you can't go wrong. Decals are of the water-slide type. To apply them, cut the decal from the sheet as close as possible to the emblem, dip it in water for a few seconds and slide the decal into position once it has released from the backing sheet. Once you have the decal positioned, apply some Solvaset to the decal. Solvaset is a special fluid which softens the decal, allowing it to drape itself into recesses, louvers, etc. Don't disturb the decal while the Solvaset is working, otherwise you will destroy it. Leave everything to dry overnight, then spray a coat of Testor's Dullcote over the wagon to seal everything. Add bogies/wheels and couplers, and Bob's your uncle!

Superdetailing

This is what you do when you add pieces to your model that aren't included in the kit. BGM make two excellent superdetailing kits for their four-wheel wagons, including shunters steps, tarpaulins and brake gear. Add your superdetailing (except tarps, they go on the GY last) before the paint job, according to BGM's instructions.

Altering Kits (Kitbashing)

Once you have mastered the technique of assembling kits, the next step is kitbashing. Get a steel rule, a small square and different thicknesses of styrene sheet, and you're ready to go. Perhaps one of the easiest kitbashing projects is to convert two GY kits into a VR E (VOAA) bogie wagon. AMRM issue 125 has the instructions, so I won't go into it here.

When you start altering, make sure you know exactly where to cut your model, as one mistake could be disastrous. Take care and time, keep everything straight and square, and you'll have no problems. Why the styrene sheet? You need it just in case extra pieces are needed on the model (in the case of the E wagon, a fishbelly underframe needs to be added).

Well, that's about all I know about kits. Making kits and bashing them is a lot of fun, the results are excellent. Take your time, file everything square, fill the gaps and you'll end up with a result just as good as the professionals. You'll also end up with a fair collection of square parts for other projects.

Since writing this article, Bill Secker has come up with a better way to improve rolling qualities on BGM wagons. Readers are referred to this article as the best way to tackle the problem.

UNIMAT BEATS THE RIVET COUNTERS

by M Pimlott

Reprinted from BRMNA Journal : March 1984

As almost anyone knows, a fair imitation of a rivet can be produced by gently bashing the point of a slightly blunt centre punch onto the side of a tender, tank, or whatever, at least in the smaller scales such as 00. Getting a second, third, etc, rivet head impression correctly spaced from the first, and in the same straight line, is, however, a different story altogether.

Last winter, I decided to amuse myself by building a GWR Small Prairie. By the time Swindon got around to these beasts, they had decided that countersunk rivetting was for the birds, and hence I was faced with either producing horizontal and also several vertical rows of rivets, or having plain tank sides. (I suppose I could have bought a kit and avoided the problems, but that was too easy.)

Having built just about every part of the loco that could possibly be built ahead of the tank sides, I finally realised that I had a Unimat lathe sitting there which could just make the whole thing real easy.

The first problem was to decide where the rivets were supposed to be. I had on hand two drawings, which did not agree with each other, so I searched various publications until I finally came up with a couple of photographs good enough to enable the tank side to be scaled off. As I suspected, both drawings were partly right, and both were partly wrong. (What else is new?) Having got that settled, I then got on with the job, and the final system used is as described hereafter.

I hasten to mention that I do not claim this to be a great invention, nor even that it is original. Very likely someone else has already done it this way. I just have never seen it published.

The basis of the method is to unship the lathe headstock, and remount it onto the pillar provided, thus converting the machine into a vertical milling machine.

Remove the lathe tool part, thus leaving a flat surface on top of the cross-slide with a tee slot across the middle of it. We now need some kind of flat plate mounted on this surface, on which the tank side can be stuck. There are two ways of doing this and which you use depends on how much trouble you wish to go to, and how often you plan to repeat this exercise.

The posh way of doing it is to gather up a piece of plate about 1/8" thick, of suitable size for the tank side or whatever. Drill two holes in the plate about an inch apart, and about 1/2" in from one edge. These holes can then be used to bolt the plate down to the cross-slide, using a pair of tee head bolts into the slot, and leaving most of the width of the plate hanging out towards the back of the lathe.

The lazy man's way of doing it, is the way I did it, which is to forget about the bolts, and stick the plate down to the cross-slide with double-sided carpet tape. You will rapidly discover that for this to work, the two surfaces must be degreased, or the tape won't stick. You will also later discover that with this method, you can only produce rivets over that area of the plate which has the cross-slide table more or less immediately below it. Attempts to make rivet impressions more than about an inch off the table will result in the carpet tape letting go and flipping the whole thing on the floor.

This does not actually matter if either the tank side is small enough, or you are prepared to move it and reset it in place half way through the operation.

Anyway, you now have this flat surface, hopefully big enough for you to be able to stick the tank side face down onto it, using more double sided tape. This must be done so that the bottom edge of the tank side is parallel with the bed of the lathe. The easy way to do this is to put a scribe, or a piece of pointed rod, in the lathe chuck, and move the headstock down until it just touches the edge of the tank side. Wind the traverse screw back and forth from one end to the other and shift the work around until the point runs nicely along the edge over the full length.

Now put the slightly blunted centre punch in the lathe chuck, slack off the spindle clamp screws so that you can use the drilling handle to move the spindle down, just as if you were using the Unimat as a drilling machine, and clamp the headstock to the pillar at a suitable height. You might, incidentally, make sure at this point, that the motor is NOT plugged in to the power outlet, because we don't need power, and it might be embarrassing if you accidentally flipped the switch.

Wind the traverse and cross-slide screws so as to bring the point of the centre punch immediately above one corner of the tank side. Now comes the big benefit of having bought yourself a machine which was made in a metric country. As you may, or may not, have already discovered, the threads used on the Unimat feed screws have a pitch of 1 mm. In other words, when you wind one of the handles one complete turn, the work table will move exactly one millimetre, and in a straight line.

Now at a scale of 4 mm to 1 foot, obviously 1 mm equals 3", and 2 mm equals 6". Hence one turn of the screw is 3", two turns is 6", and one and one-third turns is 4".

Let us suppose therefore, that you want a row of rivets, 4" up from the bottom of the tank side, the first rivet 6" in from the end, and the rivets equally spaced at 3" centres.

With the centre punch positioned as stated, over the corner of the tank side, first wind the cross-slide in one and one turns. Then wind the traverse screw two turns along the side. The centre punch will now be positioned over the right place for the first rivet.

Pull down gently but firmly on the drill handle, and the punch will leave a dent in the tank side which, when viewed from the front, should look like a rivet head. Obviously you should try this out on a lump of scrap sheet of the same material and the same thickness. You will then get an idea how hard to pull down on the handle. You will also realise that sticking the tank side down with carpet tape provides just enough 'give' to allow the formation of the 'rivet head' on the reverse side of the material.

Anyway, back to the real job at hand. Having got the first rivet, then wind the traverse screw one complete turn (assuming you want the 3" centre spacing mentioned above), and pull down again. Voila, a second rivet. Repeat as many times as it takes to get to the end, and then stop. You will now have a perfectly straight line of rivets spaced exactly three scale inches apart. (Let the rivet counters try and beat that one!) Now, the thing probably wants some more lines of rivets such as a parallel row across the top of the tank side. No problem. Go back to the

beginning by reverse winding the traverse screw. Then turn out the cross-slide the appropriate number of turns, and start a new row of rivets for the top edge. This will be exactly parallel to the first row, as long as you didn't shift the tank side on the carpet tape.

To produce vertical rows of rivets, simply wind the traverse knob until you come to the right spot (and you can let the lathe do the measuring for you as before on the 1 mm per turn system), and then move the cross-slide screw so as to produce a line of rivets at right angles to the earlier ones.

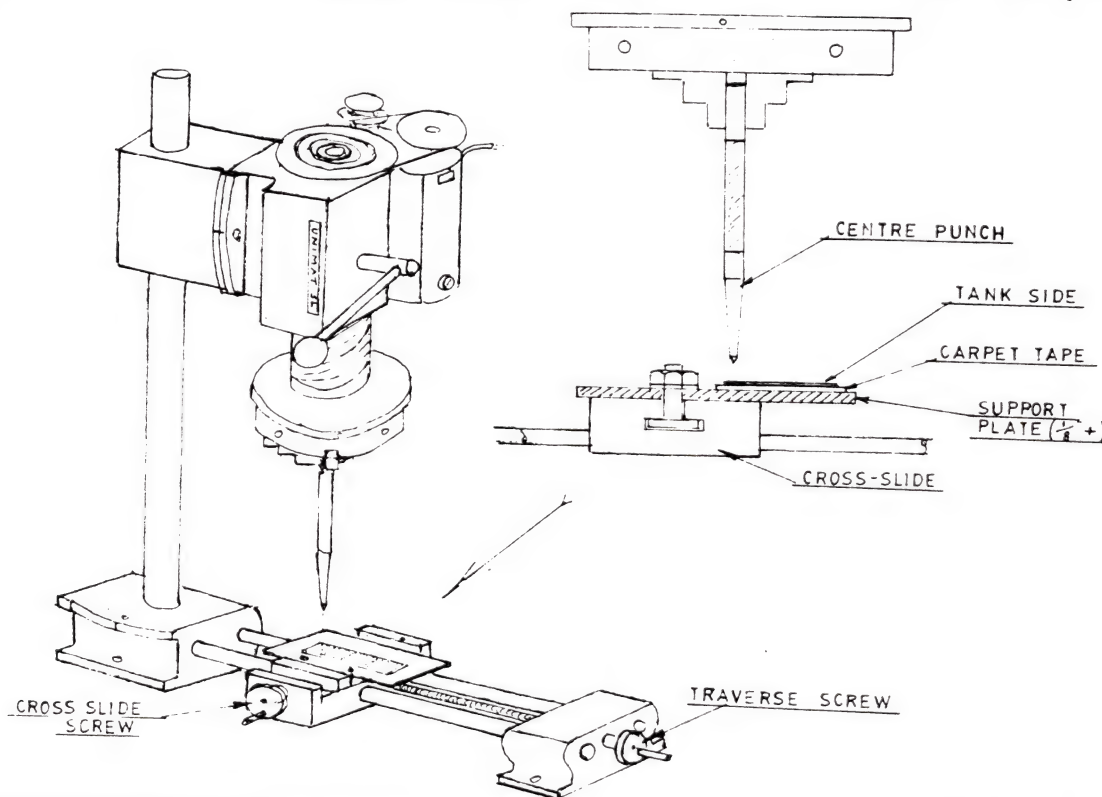
Now comes the tricky part. You have to get the tank side off the carpet tape without ending up with a twisted side. This does require a little care and patience. Ease it off gently, starting at one end, using a small 6" steel rule, spatula, or some similar implement. Try and get the tape off with the side. It won't be too hard to then get the tape off the tank side. If you like, you can do this by dumping the whole thing into any kind of solvent. (We don't plan to reuse the tape!)

You will probably find that the tank side has become curved due to the punching operation

(as it would also have if you had done it by hand). To straighten it, lay it down on a flat surface, right side up. Find a block of soft wood, hard rubber sheet, or something similar, and beat evenly over the surface with a hammer, starting at one end. Do not try bending it straight with the fingers, unless you have had lots of practice at that method. You will find it is in fact dished, and the hammer is the best way to do it, but don't start by giving it a mighty crack in the middle.

To repeat, try it first on a piece of scrap so as to get the hang of it. You will then find that you can do a tank side in about 10 minutes, although it may have taken a lot longer than that to find out where the rivets are supposed to be.

Obviously, a vertical milling machine would do the same job. A straight lathe with an angle plate can be used to produce single lines of rivets shifting the work by hand between each row. It will still be better than trying to get them right by eye. Since neither of the above is likely to have the lever feed of the Unimat, the whole process will be much slower, which serves you right for being rash enough to have bought the expensive machines in the first place.



LOCO LIGHTING HINTS

Reprinted from New Zealand Model Railway Journal :
February 1985

Locomotive Lighting

I have often been approached to provide information and circuits for locomotive lighting, usually directional and with tail lights as is the case in diesels and electric locomotives and rail cars. This article will therefore cover the basics and go right through to actual circuits all of which use 12 volt bulbs for headlights and LEDs for tail lights.

Diode Principles (Fig 1)

a If a diode in a circuit is connected with positive voltage on the anode (A) and negative

voltage on the cathode (K), then current will flow in through the diode.

b If the voltage polarity is reversed to the above example, then no current will flow, i.e. the diode blocks the current. Note that current flows in the direction of the arrow. The same holds true for an LED, except that when conducting, light is emitted.

Symbols and Connections (Fig 2)

a I have selected the IN 4002 diode; it can conduct up to 1 ampere when current flows through it and block up to 100 volts in reverse, and is readily available.

The band indicates the cathode (K) end. Don't panic if you get supplied with an IN 4001

or IN 4004 as the last number indicates the reverse blocking voltage and all this range are well within our limits.

b For LEDs, both round 3 mm or 5 mm and rectangular 5 x 2 mm, the long lead is the anode (A). If you are lucky enough to obtain a 1.5 mm LED, the crossbar indicates the cathode (K).

Most red LEDs are suitable for tail lamps and may only require alteration to their shape to fit them to a given application. This can normally be done using small files, but don't file away the plastic around the leads and black pip inside. Hold the LED up to a strong light and you will see the confines that you can modify.

Loco Lighting Circuits (Fig 3)

In all the circuits the following rule is followed. When the loco is running forward, the right wheels (RW) are positive and the left wheels (LW) are negative. When the loco is running in reverse, then the voltage polarities are reversed, i.e. RW is negative, LW is positive. This appears to be an industry standard and nearly all locomotives are wired this way. If your locomotives run in the opposite direction, you should fix it while wiring up the lighting. Usually this is done by swapping the motor leads or in extreme cases by reversing the motor magnet.

a The directional headlight circuit is one that would be used in a steam loco or diesel without tail lights.

With the loco running forward, RW is positive and current will flow through the front headlamp (FH), D1 which is conducting to LW which is negative; the front headlamp will light up. D2 blocks the current in the rear headlamp (RL) which will remain extinguished.

If the loco is reversed, then polarity is reversed and D2 will conduct and RH will light with FH extinguished.

b For the tail lamps, LEDs are used and because of their low voltage and current requirements, a resistor must be placed in series with the LED. When the loco is running forward and RW is positive, current will flow through the rear tail lamp (RT), which will light up and then through the current lighting resistor to LW which is negative. FT is blocking current and will remain extinguished. When the loco is in reverse, then the tail lamps also reverse themselves. By connecting the LEDs back to back, they will protect each other from higher reverse voltages which could destroy them.

c If only one LED is used, then a diode is required to protect the LED.

In all these circuits a 1000 ohm, 0.5 watt resistor is used and the LEDs will light up on about two volts and reach maximum brilliance at four volts. Increasing the throttle voltage will have little effect from this point onwards and the LEDs are well within their ratings up to 20 V or so.

Complete Circuits (Fig 4)

By combining the circuits of Fig 3, we can light up a diesel loco or railcar as shown. I have used Fig 4b for my Standard Railcar and it really looks great running down the rails with all the lights lit up. The areas within the dotted lines are at the front and rear respectively and the remaining components, diodes, resistors, are hidden under the skirts of the railcar, these being soldered onto a piece of veroboard.

Fig. 1 Diode principles

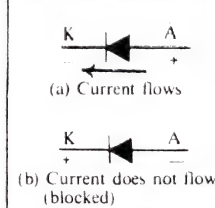
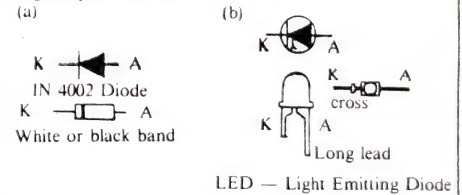


Fig. 2 Symbols and connections



Note: Diodes and LED's are the same, except LED's emit light.

Fig. 3 Loco lighting circuits

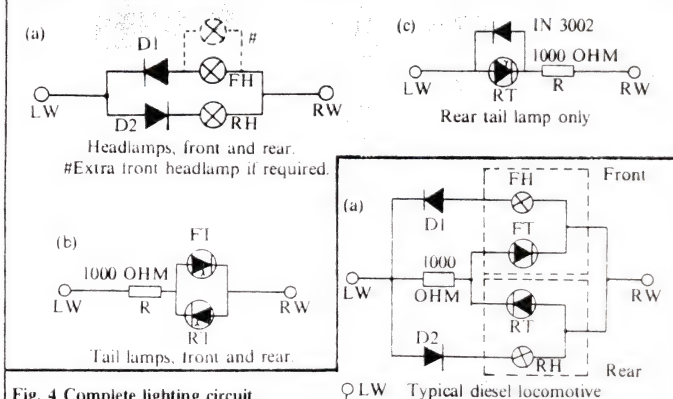
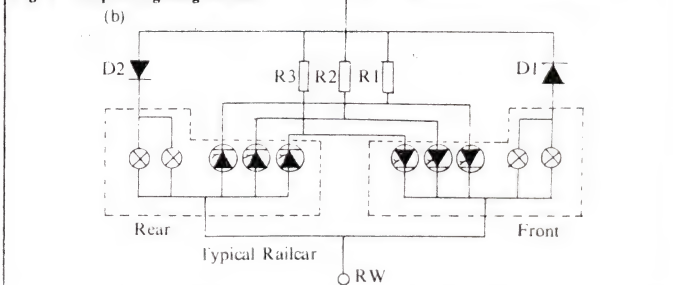


Fig. 4 Complete lighting circuit



Because five wires were needed to each end, I used 0.2 mm self fluxing wire, and this was held in place using small pieces of plasticine. The lamps were also held in place this way, it makes for easy removal at a later date if needed. The plasticine can be painted if required.

Although I have not got any diesel locos yet, I checked some plans for the physical problems that might occur. One thing I noticed was most modern diesels use two tail lights in one fitting. The size of this fitting is just right to be made out of a 5 x 2 mm rectangular LED with the edges rounded off and the lenses shaped from the end. The carved fitting could then be glued into a hole in the loco body and painted over, except the lenses.

Small grain of wheat lamps are hard to get in New Zealand so use the small 12 volt screw-in lamps that are available from electronic suppliers. If you are not too keen on soldering directly onto the lamp, screw fittings can be bought. These are easy to fit to most locomotive bodies, but their size would represent a problem in steam locomotives.

Finally, I have tried to keep these articles simple with a reasonable explanation of how they work. If you have any queries or ideas you might like to share, please contact the Editor who will pass them on to me. Provided they are within the realms of the Journal, then I will reply in the Journal with an article or note to suit. But don't forget, most people find electronics and wiring very mysterious. The main intent is to KISS - 'Keep It Simple Stupid'.

THE QUANDARY

by Dane Parker

Reprinted from Sydney N Gauge MRC Magazine :
April 1985

The dictionary defines a quandry as a practical dilemma and that may just be where we N-scalers will find ourselves in the next few years. The cause - standards.

First a little history. When N scale first began to be marketed on a commercial basis in the late 1960s, the predominant manufacturers were European. Consequently, the first models and track were made to fit a miniaturised version of the local MOROP/NEM standards in HO. The most noticeable characteristic of these standards was the very deep flanges and wide wheel tyres that it allowed. In the belief that deep flanges resulted in less derailments this situation has continued to exist until recently.

When the NMRA first considered N scale standards they encountered a situation where everyone was doing what they liked and surprisingly it worked fairly well. As a consequence they developed two sets of N scale standards:

- 1 High Rail - which was compatible with the existing commercial products
- 2 Fine Scale - which was essentially exactly 1:160 of the prototype and virtually beyond the skills of most modellers

So the situation continued much as it had always done.

Later it became apparent that a reasonable number of serious N-scalers still wanted a finer scale than the High Rail, but one which would be practical enough to allow mass production of suitable commercial equipment. Some of the manufacturers noticed this too and experimented with smaller flanges. Kadee could also see the value of narrower tyres on the wheels, after all, they had been using them successfully for over a decade.

As pressure mounted, the NMRA made several abortive attempts to develop a standard which would be for N scale the same as the well known RP25 was for HO. Finally, in mid 1984 a ballot was held and N scale modelling NMRA members voted by a majority of 82% to accept the new standard for N (and a similar one for N narrow gauge).

So now N SCALE HAS FOUR STANDARDS:

- 1 High Rail (the older coarse flanges and wheels)
- 2 NMRA Standard (for finer track and wheels)
- 3 NMRA Fine Scale (precisely reduced prototype)
- 4 NMRA Narrow Gauge

This is where the quandry comes in because to a certain extent the first two standards (which we are likely to use) are incompatible. This incompatibility has been minimised, but problems still exist. The main difficulties are as follows:

a Although the new wheels with their 0.020" flanges will operate beautifully on code 40 flex track, the old ones won't. This problem already exists now. Naturally the new wheels will also work fine on higher code track.

b Turnouts built to the new standard will allow the passage of some old wheels (Concor, new Bachmann and Kadee), although they may bump a bit over the more shallow flangeways. Many older wheels, such as Rapido, Minitrix and Rivarossi are just too coarse and will derail when they meet the flangeway guard rails. Railcraft's new code 55 turnouts are of this type.

c Turnouts built to accommodate the old standard wheels may cause problems for the new wheels. This is because the small flange will not support the wheel as it passes through the area approaching the frog. Additionally, the wide flangeways of older turnouts may allow the finer wheels to pick the frog, especially in the diverging route. This already occurs with Kadee and some Concor wheels on Shinohara and Peco turnouts.

d Although replacement wheels for rolling stock are likely to be available fairly quickly (Kadee has said they will produce them), locomotives will remain more of a problem. The only locos in my collection which precisely meet the new standards are those on Samhonga brass diesels. New Bachmann wheels and some Kato ones also come close. Some older Rapido flanges are almost three times deeper than the new standards allow with tyre treads twice as wide. Conceivably, replacement wheels for diesels could be produced, as most American locos have 40" wheels and there are only a few different axle diameters. The major problems would be with steam locos - does anyone want to turn down all the wheels of their Big Boy and 6YB and Pacific and Berkshire and?

Practical tests with wheels and track to the new standards show reduced derailments when pulling a train with either Rapido or Kadee couplers. When pushing a train, the new wheels will derail more readily with truck mounted couplers unless the track work is perfect. This is especially so with Kadees as the centering spring tends to cock the truck sideways when pushed, allowing the flanges to find any flaws in the truck. With body mounted Kadees, the derailments are again reduced. (Note: These tests were done using only old Kadee wheels. The use of other brands, or mixtures of brands was found to increase derailments in all circumstances.)

So that is it. Anyone considering building a large layout in the next few years must consider the long term effectiveness of his wheel and track standards, and must keep a very careful eye on the market place, for during that time it will largely be the manufacturers who make or break the new standard. Personally, I would like to see it succeed. I like fine rail and wheels, and believe that they are an important measure in eliminating the 'toy train' attitude that many modellers express about our scale.

The new standard gauges are again available from a number of hobby shops now - buy one, it may change your whole hobby outlook.

CENTRAL QUEENSLAND: MAIN LINE ELECTRIFICATION PROJECT

Information in this article is reproduced from Facts Sheet No 1 concerning the electrification of Queensland Railways coal lines. Approval to reproduce was sought by Bruce Norton and was granted by the Queensland Railways Deputy Commissioner and Secretary.

WHERE AND WHAT IS IT?

It's Queensland Railway's main line electrification project, designed, in the first instance, to haul coal from the Central Queensland coal mines to the sea ports more efficiently, more economically and more quickly.

There are four stages:

STAGE 1 The electrification of the main line from Gladstone to Rockhampton, then west to Blackwater and the coal mines in that area.

STAGE 2 The electrification of the coal lines south from Dalrymple Bay and Hay Point, then west through the Goonyella system, south west to Blair Athol and south to Gregory - linking up with Stage 1.

STAGE 3 The electrification of the main western line from Blackwater to Emerald.

STAGE 4 The electrification of the line from Newlands to Collinsville and north east to Abbot Point.

WHEN?

Right now! Civil engineering works to upgrade the existing track, provide loops and crossings and double line is underway.

Several major contracts have already been let, including the installation of electric overhead wiring, transformers, switchgear, etc. It is expected the first of the electric locomotives will be operating by 1986, between Gladstone and Rockhampton. Stage 1 of the project should be finished by July 1987, and Stage 2 by December

1987.

HOW MUCH?

It is estimated that Stages 1 and 2 will cost approximately \$600 million (today's prices). The overhead wiring alone will cost almost \$100 million.

ELECTRIC LOCO CONTRACTS FOR \$189 MILLION JUST ANNOUNCED

The Premier of Queensland, the Honourable Sir Joh Bejelke-Petersen and the Minister for Transport, Mr Don Lane, recently announced that contracts for the design and construction of 146 electric locomotives to service the Central Queensland Coal Mines have been awarded as follows:

To Commonwealth Engineering (Qld) Pty Ltd for the supply of 76 locomotives at a cost of \$97.8 million. A further 70 electric locomotives to be built by Clyde/ASEA-Walker's joint venture partnership at a cost of \$90.9 million.

Mr Lane said Commonwealth Engineering had a proven record on rolling stock manufacture in Queensland and had a tremendously successful involvement in the manufacture of diesel locomotives and general rolling stock.

ASEA-Walkers in Maryborough were already building the electric rail cars which had proven so popular on the Brisbane suburban electrification project. The Transport Minister said the order for 146 locomotives was the biggest contract for the construction of rolling stock at one time in Australia's history.

Mr Lane said the awarding of the contracts to two firms would see the work shared on an extended basis in many areas of the State, creating employment through extensive sub-contracting. Expenditure of \$189 million would create 107 800 man weeks of employment, he said.



THE CLEMINSON SIX WHEELERS – REPLIES TO A MEMBER

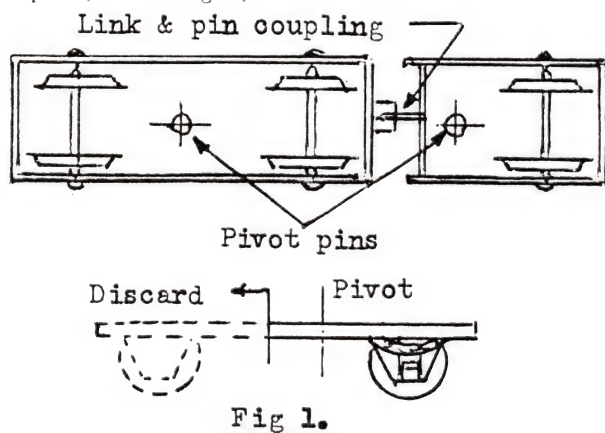
The Editor
AMRA Journal
Dear Sir

In reply to Ern Raddatz (Pop Valve, Journal 167), some years ago there was an article in the ARHS Bulletin on radial axled rolling stock of the Queensland Railways in which a drawing of the Cleminson system was reproduced.

I believe it operated with a system of rods and bell cranks, but have been unable to locate any further details.

Articulation of a long wheel base six-wheel coach to traverse model railway curves could be achieved by the following:

The chassis is formed from a long wheel base four-wheel bogie complete, and a similar bogie from which the inner axle boxes, etc, has been removed and is connected to the other with a link and pin (refer Fig 1).



This could be done using four-wheel wagon chassis.

The location of the pivot points would depend on two things:

- 1 The amount of side play allowable for the centre axle, which is governed by the clearance between the outside of the axle box and the inside of any suspended brake gear or foot boards outside the line of the coach or wagon frame.
- 2 The amount of allowable overhang at the ends of the vehicle without causing buffer lock, coupling trouble, or exceeding the loading gauge.

The link and pin coupling connecting the $1\frac{1}{2}$ bogies should be a loose fit fore and aft, but a snug fit side to side.

I hope the above is useful.

Regards
Geoff Lukins
Queensland

Pop Valve
AMRA Journal
Dear Ern Raddatz and others

I have enclosed an instruction sheet from my Kitset NZR C class six-wheel cars. On the reverse is a diagram of how the chassis goes together.

New Zealand had a large number of Cleminson's six-wheeled cars here from 1872 until 1943 when some were converted to non-revenue ways and works vans.

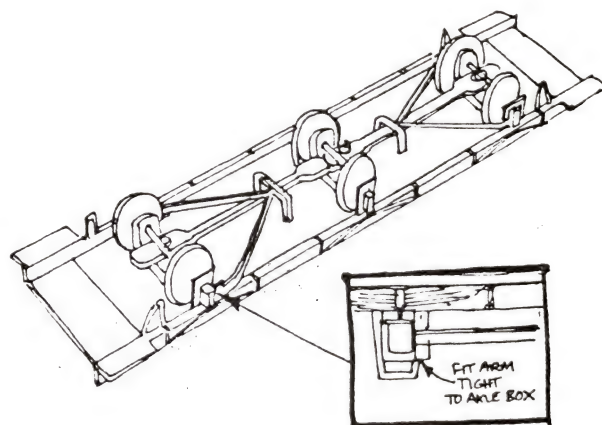
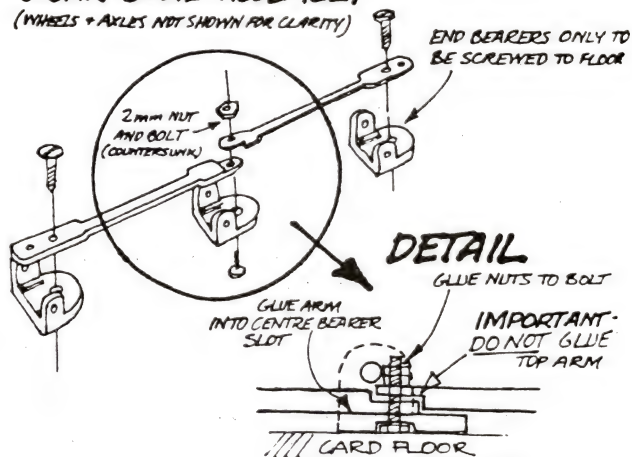
Feel free to reproduce the sketches and instructions in the Journal.

John Agnew
Railmaster
New Zealand

EARLY CARS AND VANS

'C' CAR ONLY

'C CAR' BOGIE ASSEMBLY (WHEELS + AXLES NOT SHOWN FOR CLARITY)



Glue on side frame (two pieces) to underside of car. Glue other side frame on directly opposite. Keep maximum gap between opposite side frames to allow wheels side play. Drill 2 mm axle holes in wheel bearers. Shorten axles by screwing one wheel at a time inwards on axle and then cutting off pointed section of axle with a piercing saw. Axle length to be 20 mm regauge to 14.5 mm back to back. This procedure prevents the black plating being scratched off the wheel rims by the saw. The arms linking the three wheel bearers effectively turn the chassis into a 2-4-0 wheel arrangement (see sketch). The two end bearers are screwed into the card floor through the inner holes while the centre bearing floats. Only when the assembly is working properly and all wheels are centred behind their respective axle boxes should the arms be glued to the bearers. Note that the top arm is NOT glued to the centre bearing to enable one end to act as a pivoting bogie. The 'Wishbone' dummy bogies can now be glued to the floor and to the axle boxes as per sketch.

The Editor
AMRA Journal
Dear Rex

I received my Journal yesterday and am very pleased with it.

In reply to Ern Raddatz's plea for plans of the Cleminson bogie, I suggest that you could not do better than to reprint Arthur Harrold's article on the subject. It can be found in Febru-

ary 1957 (Vol 7, No 1, consecutive issue No 23) number.

While I am writing, it might interest Paul Kehoe to know that he is not the only member of this Association who ever watched trains in Lancashire (Journal 166). In my tender infancy I used, I am told, to be conducted up a certain Cawpit (Coal pit?) Lane in my native town of Radcliffe near Manchester to watch the trains on the L&LR. I may even have had a sight of a 'high flyer', but of these expeditions I have no recollection whatever. My first memory of a train is of a line of dark red coaches (Midland?) which bore me away from Lancashire's salubrious climate forever.

Yours sincerely
Jack Makin
Queensland

SOME MORE ABOUT SIX-WHEELERS

by Arthur Harrold

Reprinted from AMRA Journal No 33 - February 1957

The article on six wheeled vehicles which appeared in the November 1956 issue of this Journal discussed some of the points associated with modelling six wheeled rolling stock, but confined the attention of readers to vehicles found either now, or not so long ago on British Railways, and performing under standard gauge conditions. What may not be so well known to readers is that six-wheelers have also been used on narrow gauge railways, and because these railways nearly always use minimal radius curves, a special device is used to ensure that such vehicles negotiate sharp curves without derailment.

In the Model Railway News of July 1956, there is an illustrated article on the Festiniog Railway, a narrow gauge line running through mountainous country in Wales. One of the illustrations is of a six-wheeled coal wagon and the caption, which I quote, reads as follows: "The Cleminson six-wheeler of steel construction incorporates an unusual axle assembly for a coal wagon. The two end axles are radial and the centre axle and bearings have a lateral movement of a few inches." An unusual assembly for a coal wagon! I think you will agree that it is an unusual assembly for any piece of rolling stock.

At the turn of the century there were, in Queensland, eight different types of six-wheeled goods wagon, each using Cleminson's bogies. They are all now obsolete, but drawings of them still exist, and a further drawing - No 107 - is also available, which gives the arrangement of the bogies.

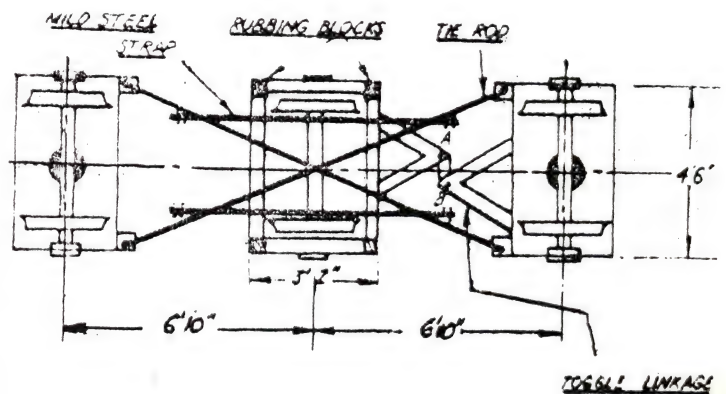
List of Six-Wheeled Goods Wagons Formerly Found On The QGR

Class	Description	Length	Bogie Centres	Total Wheelbase
B	Covered Goods Wagon	20'	6'10"	13'8"
E	High Sided Goods Wagon	20'	6'10"	13'8"
G	Open Goods Wagon	30'	11'10"	23'8"
J	Cattle Wagon	25'	8'6"	17'0"
M	Sheep Van	26'	8'6"	17'0"
O	Platform Wagon	25'	8'6"	17'0"
R	Timber Wagon	20'	6'10"	18'8"
X	Rail Wagon	20'	7'0"	14'0"

These wagons were, of course, intermediate in length between the four-wheelers and the eight-wheeled bogie wagons. However, it was not long

before they became redundant; on the one hand the longer four-wheelers, 20' long and equipped with Grover's bogies, were simpler mechanically and presented very little difference in loading capacity. On the other hand, the shorter bogie wagons of conventional design measuring anything from 21' upwards in length, depending on type, were able to provide better service for larger loads.

The drawing reproduced overleaf is derived from QGR drawing No 107. The special toggle linkage is fitted at one end of the centre bogie only, and A and B are $1\frac{1}{4}$ " pins. The distance between them is 7"; i.e. each is $3\frac{1}{2}$ " from the centre line of the wagon. Bogie centres are given in the diagram as 6'10", but actually this dimension refers only to classes B, E and R. For the other classes, reference should be made to the list above.



The mechanical arrangement makes use of crossed tie-rods which are an integral part of Grover's bogies and which allow a surprising amount of controlled movement of the radially attached pairs of wheels at each end.

The middle pair of wheels is attached at one end only by means of a toggle linkage to one of the end pairs. In this way it is allowed freedom of movement in a lateral direction, and in order to restrict this movement to a reasonable limit, mild steel straps are mounted on edge to the underframe so that they make contact with the inner surfaces of each of the wheels of the centre pair. In this way they restrict lateral movement of the bogie to 2" in either direction. In order that the middle pair of wheels may take its share of weight-bearing, rubbing blocks are placed at each corner of the assembly and these assume direct contact with the underframe.

It remains to be seen whether any modeller will ever feel inclined to build a detailed model of one of these six-wheelers. Probably an effective compromise would be to suspend the centre pair of wheels freely and to make no attempt at weight-bearing for it. The serious modeller in the narrow gauge field who wishes to operate comparatively long wheel-based stock on a model railway with difficult curves, could well consider radial suspension of the end pairs of wheels, with crossing tie-rods, as a means of achieving his object. Such a method presents the free-lancer in this field with great possibilities, whether for passenger or for goods, for four-wheeled, or for six-wheeled stock. I am indebted to the Queensland Railways Department for providing the details from which the accompanying diagram has been prepared.

The Editor
AMRA Journal
Dear Rex

In reply to Ern Raddatz's query in the last issue of Journal (No 167, p 113) regarding Cleminson Bogies.

Cleminson bogies were quite literally two-wheel bogies with their suspension and attachment to the frame the same way as bogies (four-wheel ones). Their purpose was twofold:

1 To fit in at high speeds in poorly laid and very tightly curved track. By high speeds (60-70 km an hour) I mean the emerging express trains (courier trains) in Europe. These trains were often running with a surcharge of 70% over the normal stop trains, and bearing design was relatively slow to develop; it was more possible to put in a better bearing in a bogie suspension centre than in the axle boxes.

2 The second aspect was that these passenger coaches could be lengthened and have three bogies underneath of them. The first passenger coaches were - after the stagecoach type of development only 3-4 m long between buffers, and longer coaches - passenger carriages - which could use bogies at all, were 6-8 even 10 m long - today an European passenger coach with bogies is 26.4 m long and even after the first world war they reached 18-22 m in length. Therefore these Cleminson bogie coaches were capable of greater speeds, as well as had a greater ability to fit into curves and pass points.

At the time when Cleminson bogies were introduced, after 1860, the American pattern bogie looking coaches had no bogies, but four axles in a fixed frame; the frame was narrow and side-play was possible, especially with internal bearings.

Cleminson bogies came into use when the express trains became heavier and more common, around 1880 and thereafter. In fact, up to the turn of the century, most expresses had three axle Cleminson bogie type underframes, with connecting covered corridors, the other passenger train carriages had usually open platforms and either no connections or a simple steel connecting step. Cleminson bogies were for expresses mainly.

Ern Raddatz's query regarding HO utilisation has two solutions: German Trix makes old Bavarian express coaches which look to me as operated by Cleminson bogies, and Kleinbahn in Austria does in fact make all their four-wheel coaches (and wagons) with Cleminson bogies. These bogies are available from them directly (Kleinbahn sells only directly) and bogies are available, but they are not made for six-wheel coaches, Kleinbahn does not make them. All Ern needs is three of these bogies and make up a mainframe or coach frame for them, or to get a complete German Trix HO underframe of the Bavarian express carriages of the 1880-1890 type. In the German Trix catalogue these are quite conspicuous - they have twin windows.

With the best regards.

I M Laszlo
ACT

The Editor
AMRA Journal
Dear Mr Little

Regarding the query from Ern Raddatz (AMRA Journal No 167, p 113), concerning flexible six-wheeled underframes for rail vehicles, I submit the following information on previous articles:

Australian Railway Historical Society's Bulletin - 1974, page 75 - Radial Wheeled Rolling Stock on the Queensland Railways by J W Knowles (describes principles of the Adams, Clark, Cleminson

and Grover's systems, with variations).

AMRA Journal 1955, p 130 - A survey of Goods Wagons used on the Queensland Government Railways by Dr A Harrold (mentions usage of Grovers, Cleminson bogies).

AMRA Journal November 1956, p 45 - Six Wheelers! Ever built one? by Arthur Harrold and Edgar Snowden (mentions lateral displacements of wheels in models).

AMRA Journal, February 1967, p 21 - Some More About Six Wheelers by Arthur Harrold (mentions Grovers, Cleminson bogies in Queensland).

AMRA Journal, May 1957, p 23 - Building 3/16" Scale F and FG Wagons by Arthur Harrold (p 29 describes building models of FG wagons using Grovers bogies which will traverse 6" radius curves).

AMRA Journal, November 1958, p 11 - Timber Wagons of the QGR by Arthur Harrold (usage of Grovers, Cleminson bogies).

AMRA Journal, February 1961, p 29 - Pop Valve - from Leslie Poole regarding Grovers bogies in Tasmania.

AMRA Journal, May 1961, p 32 - Pop Valve - from Ern Raddatz regarding Grovers bogies on Kleinbahn models.

AMRA Journal, August 1961, p 29 - Grovers Bogies by Arthur Harrold (principles and adaptation to models).

There may be other or later references, but the above listing should be sufficient to describe the principles of the various systems, their application on full size railways and methods suitable in model building.

Yours sincerely
Max Haustorfer
Victoria

NSW SHUNTERS WAGON

by David Brown

A model of an NSWGR shunters wagon can be made quite easily from an S wagon kit. It's much easier to convert a wagon that's already been assembled.

Begin by removing the doors, cutting as close to the planked door section as possible, cut right through until the floor section is reached. Then score the inside of the door section a few times until the door can be snapped off by flexing it a couple of times. File until all is straight.

All we need now is detailing. Again, those Camco cattle wagons supplied the brake handles, they are affixed between the axle guards and the ends. Two pieces of Slaters microstrip 20 thou x 40 thou need to be attached to the bottoms of the axle guards; they are 41 mm in length.

Wire shunters steps are attached to the sides of the wagon, and are located so they hang down between the brake handle and the axle guard, and a brake cylinder sits underneath in the centre of the wagon.

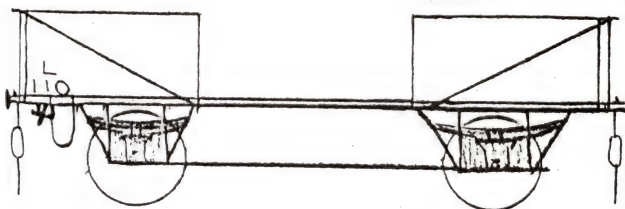


Diagram not to scale

ADDING KADEE COUPLERS TO A TRAX 48 CLASS

by David Brown

The 48 can be fitted with Kadee couplers quite easily.

1 Remove the body by unscrewing the two Philips head screws under the fuel tank. The body still won't come off until the coupler pocket at the short hood end is removed - just a matter of squeezing and pushing at the same time.

2 Remove the coupler pocket at the long hood end with a razor saw or similar, and file square.

3 Assemble Kadee No 5 couplers. When assembling the coupler for the short hood end, assemble so the trip pin points the same way as the raised lip on the coupler box.

With a small file, remove the paintwork from the ledge on the short hood pilot. Cut a piece of 10 thou plastic big enough to cover the ledge and extend back a little. Glue this to the ledge with Network superglue, then glue the coupler on top with the lip hard up against the piece of plastic. Run a fillet of epoxy around the bottom and edges of the coupler for extra strength.

5 A coupler can't be glued to the other end as it will be in the way when the body is replaced. Take an 8BA clearance drill (No 53 I think) and drill a hole through the chassis after marking the position by testing fitting a coupler. Countersink the hole. Build up sufficient plastic to bring the coupler to correct height, then continue the clearance hole through the plastic. Drop an 8BA CSK screw through the hole and superglue it in. The screw head must not protrude at all - if it does, file the extra off. Put the body back on, put the coupler through the pilot and over the bolt and attach it with a nut.



The Editor
AMRA Journal
Dear Rex

Heaven forbid that I should offend Ern Raddatz but here is a 'gleeful letter' from Phil Kelly.

The fact that I model NSWGR doesn't mean that I don't read about other prototypes, nor would I be embarrassed to read a serialised coverage of the SNCF and fore-bears in Journal. As for the meaty part of Ern's letter, there once was a gentleman by the name of Dennis Allenden who built some exquisite models of French prototype. Unfortunately I don't know if the companies he modelled or the eras represented are useful to Ern, but from my own references come the following:

Model Railway News, September 1968 - Part 2 of a construction feature on St Jean d'Angely, an Etat 2-4-2 (1-2-1) express loco, in a mostly black livery. Also makes mention of Vauquesal-Papin, author of a book on French locos.

Model Railways, July 1975 - a construction article on the Etat, Highland Castles, built by North British Railway, again in NSWGR black livery.

Railway Modeller, July 1973 - 'Railway of the Month' features Allenden's layout.

Allenden lived in the USA, and although I haven't turned them up yet, I'm sure he also had

one or two articles published in either Model Railroader or Railroad Model Craftsman. I have a vague recollection of a magnificent model loco in a shade of red as the cover photo on a US magazine. I think one would have to search 1978 and earlier issues of these magazines.

I can sympathise with Ern in his quest for colours at that time and distance. Just try and find two people who will agree on the correct colour for 'Russet' as used on NSWGR passenger stock, as recently as the late 40s and 50s.

Regards

Phil Kelly
New South Wales

PS Surely everyone knows a 'Midi' is a measure of amber coloured liquid - PK.

The Editor
AMRA Journal
Dear Sir

LOCOMOTIVE SWAP

I have only recently taken up railway modelling and am concentrating entirely on Union Pacific steam in HO. For my first locomotive I bought a Bachmann 2-8-2 Mikado in UP livery. Unfortunately, after some reading, I found that it was quite a good model of a Reading Consolidation 2-8-0, with a trailing truck added, and in fact hardly resembled a UP Mikado.

I am therefore very interested in swapping, with any necessary cash adjustment, this loco with a Pacific 4-6-2 or Mikado 2-8-2 that at least somewhat resembles a UP prototype. It need not be in UP livery.

Can any member help me? If yes, please contact me. My address is in the membership listing of Journal 167, page 140.

Yours faithfully
K J Cowen
Queensland

The Editor
AMRA Journal
Dear Rex

A plea for information through the Journal does work! Jim Christie from Queensland sent me a copy of an ARHS Bulletin article on several flexible underframe systems that were used on the Queensland Railways. Quite an interesting article; I didn't know there were so many variations of flexible systems in use. The article, in the April 1974 Bulletin, is well worth reading, and I thank Jim for taking the trouble to send it.

The Kleinbahn rolling stock does, or did, have a simple form of Grovers bogie on their four wheeled wagons in which each pair of wheels were centrally pivoted and the cars staying on the track by virtue of the couplers being part of the centrally pivoted axle guards and the deep, very deep, flanges in use.

For use on a model these paired axle guards would, I think, need to be joined diagonally by wires and the couplers, of whatever type in use, would still need to be connected to the axle guards. Although I haven't seen it, I believe the Hornby long wheel base four wheels had a similar system to the Kleinbahn wagons.

Thanks for telling me at the Branch meeting that the particular Journal article was in the Branch Library. One must make more use of the Library; it's marvellous what information can be found in there.

Now for my turn to pass on information. In Journal 166 Victorian Branch Notes was a plea

for TT building kits. While the East German Vero range would be about the only strictly TT range available in Australia, I would like to point out that many so-called HO kits can be used, not only for TT, but for N scale as well. The Europeans have a rather cavalier attitude to what is scale, especially for kits not made for the US market and are quite undersize for what they are supposed to represent, particularly multi-storied buildings. I would suggest that anyone looking for TT kits, take a figure in that scale with him/her to the hobby shop and compare the figure with the HO kits.

For those using Lima HO diesels and electric outline locos. While the motors and gearing in these locos have improved over the last year or so, the traction still leaves a lot to be desired; the traction tyres don't wear out, they expand with old age and the wheels spin inside the tyres. I suggest that for models with large wheels, fit Roco tyres No 04689S and for those with small wheels, use Roco tyres No 04589S. All good hobby shops would have these tyres.

Regards.

Ern Raddatz
Victoria

The Editor
AMRA Journal
Dear Mr Little

I really am quite surprised at the outburst by Angstrom (Peter Betts) in the Pop Valve of Issue 167.

Again it seems there is a case of 'you over there' reading what you want to read and not what is written - even after being chastised for it by the revered Federal Secretary.

All of the 'shortcomings' listed by Mr Betts are, in fact, the very essential parts of the entire system which raises the reliability of matched standards above those of our coarser brethren.

And at no time - and I've just re-read my article - did I claim that the track gauge gave more reliable running. What I did claim is the fact that matched track and wheel profiles give better running, and that has been demonstrated over and over again.

Let me, to set the record straight, quote from one paragraph from my article:

"I have proven to my own satisfaction - that the correctly matched rail and wheel profiles which have been manufactured for 18.83 mm gauge, 4 mm/ft scale modelling improves measurably the running qualities of locomotives and rolling stock even, it can be argued, beyond that apparently achievable with EM standards....."

What confuses me most about Mr Betts' letter, though, is his intent. The article was titled ONE MAN'S MEAT for a very good reason - it related my preferences.

My preference now is for a gauge of 18.83 mm. Mr Betts' preference is to run standard gauge locomotives and stock on narrow gauge track. Fine.

But please, Mr Betts, hesitate before you dash into print with the phrase - "...the amount of maintenance required to keep a P4 layout running reliably is prohibitively large and beyond the ability of all but the most skilled craftsman."

Absolute balderdash and poppycock, sir! I'm about as unskilled, in the terms you refer to, as just about anyone, but what skills I do possess I obtained through working to EM Gauge Society standards, of which august body I am also a member.

I simply extended those skills to that extra little bit to satisfy me.

I think, however, that the secret of your frustration lies in the time period you nominate - the mid 70s.

P4 - Protofour - was holding sway with a lot of theory and not much practical help, as I understand it. The SCALEFOUR SOCIETY was just born, it's now only 10 years old. SCALEFOUR adopted the standards as laid down by P4, then proceeded to apply those in a practical manner with, now, some 300 items available to make modelling to these standards achievable to anyone who desires to avail themselves of the gauges, rail, compensation units, etc.

And I mean anyone, not just the adventurer or the skilled, but anyone who desires to model.

And a glance through the modelling press from the UK will show the extent of penetration amongst modellers who have adopted fine scale and SCALEFOUR, to say nothing of the fact, again, that most of the better kit manufacturers have retooled to accommodate 18.83 mm gauge, something they would not have undertaken lightly.

To conclude, a Mr Brian Adams also spake out in the same Pop Valve. No, Mr Adams, HYLTON did not produce 'the worst possible running' at the 1985 exhibition, it produced some of the best for each of the three days, leaving most of the coarse scale layouts foundering in the usual sea of derailments, kangaroo hops and stalls, coupled with the usual jerk jerk standard or running - when they ran. They behaved, in fact just like that alledged doyen of OO layouts, BORCHESTER MARKET which, during the three hours I spent at the Bristol exhibition 1983, hardly moved at all.

Really, Mr Adams, I do trust that you have seriously considered joining the Federal Committee.

Paul Kehoe
Western Australia

The Editor
AMRA Journal
Dear Rex

With all due respects to Tony Walsham's impressions, "oils ain't oils, Sol", but facts are facts. I have never dealt with Thailand, India or Fiji, so will present no argument, BUT I can assure you that at the time of writing the article, and at least up to 1 July 1985, Taiwan, Korea, Hong Kong and Singapore were regarded as 'developing nations' under the various dog and goat acts that govern imports and tariffs.

Tony has picked up that point of 'HO Gauge'. I was tempted when typing up the article to type the more 'correct' term, HO Scale, thought better of it and typed exactly what was shown in the Tariff Order.

I would not take too much comfort in relying on 'HO Gauge' to mean 16.5 mm between the rail heads in this context. Tariff Orders tend to bristle with terms such as 'of a type' and 'of a kind' and other nebulous terms which allow a wide range of interpretations to be made.

Let's face it, over the years the term 'HO Gauge', etc, has been used to refer to anything from track gauge to locos, rolling stock, buildings, motor vehicles and even 'little people', so a precedent can be claimed.

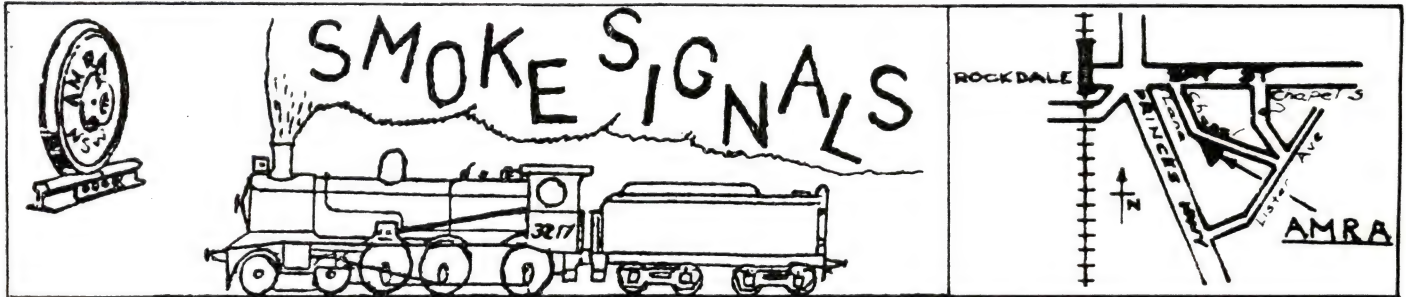
In conclusion, anyone who can export any product from this country deserves praise indeed. Keep it up, Tony.

Regards
Phil Kelly
New South Wales

STATE



NEWS



HEY, YOU!! READ THIS!!

Well, if it worked for Phil Kelly, maybe it will work for me too! It is apparent that some of you are just flicking through Journal and then tossing it aside without reading it thoroughly. In recent months, we've arranged some different meetings for which it is essential to make bookings beforehand (such as the Sausage Sizzle). Some members have simply wandered into the Clubrooms totally unaware of these meetings without reading the program in Journal and expect to be accommodated. Some have even said that they don't have a current program because 'for some reason, I'm not getting Smoke Signals any more'. For the benefit of those members, take note that Smoke Signals is no longer being produced as it used to be, but is now incorporated in Journal. As such, the only program being published now is in Journal. If you're not receiving Journal, contact Norm Read.

Good news! The Branch's typewriter has turned up at long last. It seems that someone borrowed it some time ago, but forgot who it belonged to. I can't reveal his identity, but I have a message for him: Your dinner's ready!!

The spray painting clinic was an overwhelming success with about 40 turning up on the day. I am preparing notes on spray painting hints which will be in a future edition of Journal. I would like to extend a special thank you to Glenn Watson for helping me with the demonstrations. He is also preparing notes on his contribution to the clinic.

Just one point about the clinic. I mentioned the necessity of spraying in a well ventilated area, as well as wearing a surgical-type mask when painting. The reasons are, firstly, to avoid breathing in fumes and, secondly, to prevent particles of paint from getting into your lungs. I spent about five hours continuously over the paint and solvents during the clinic and, although I was wearing a mask, I was still very exposed to the fumes - the Clubrooms are not the best place to spray paint in. When I got home, I took about two steps inside the door and everything went black. I woke up about 10 minutes later. So, remember, when you paint (whether spraying or brushing), make sure you are in a well ventilated area. Breathing the fumes in can be quite dangerous indeed.

If the October long weekend hasn't already passed, don't forget the Exhibition! If any interstate members intend to come up (or down or across) to Sydney, please let us know so that we can make you welcome. Definitely so for WA members too!!

Philip Morgan
Branch Editor

PRESIDENT'S PIECE

I recently had the opportunity to have a look through back issues of Journal, in fact, way back to Volume 1 Number 1, August 1951. Unfortunately, I could not spend the time to read every article, but the overwhelming impression was that more model builders (read 'scratch builders') were prepared to present 'how to' articles than presently. Why?

The front page motto was, and still is, very appropriate for our Association and read 'For all who are interested in scale model railroading'.

The Sausage Sizzle held on Saturday 6 July was a great success with 45 persons attending. Thanks go to June Larmour and Val Hogan for the preparation and work that evening to feed the 'multitude'. Don't miss out on our Christmas party this year; see details elsewhere, and make your reservation and payment now!

The modelling clinic on spray painting conducted by Philip Morgan also proved popular with the last persons not leaving until 7.30 pm. Anyone else interested in presenting a clinic is encouraged to come forward.

Keith Cooper and Dave Bennett are responsible for improving the efficiency of our auctions by setting up their computers and printers to provide a very fast finalisation of sales details and accounts, even after going through the unsold items once again.

Thanks are also due to Ron Walmsley and his helpers for the carpentry work being done around the Clubrooms.

Hope to see you at the 1985 Exhibition at the Liverpool E G Whitlam Recreation Centre.

Bruce Norton

NEWS FROM THE LAY(AB)OUTS

HAWKESBURY

Well, the layout has started sprouting gum trees! How much can a Koala bear! Just wait 'till gum leaves' (sorry about that). Hawkesbury is now looking bright and fresh and will be on show at Liverpool.

We are in need of operators for the Exhibition as well as able bodies to help load the layout onto the trailer and setting it up at the Exhibition on the Friday. If you can help, please contact me as soon as possible, either at home or at the Clubrooms during meeting times.

Philip Morgan

O SCALE NEWS

As the chief scenic man has been engaged in a different style of scenic work at his daugh-

ter's residence, very little has happened in this department on the layout. Otherwise, much patience and work has been going on with the branch section.

Working in a rather cramped situation for correcting troubles is not recommended. We have seen quite an array of new locos or under construction appear on the Wednesdays; these are brought along for track trials and sometimes adjustments to the skates are required. What are skates? Since the 0 scale is a stud contact system, skates are fitted to the locos to provide pick up as they slide over the studs in the centre of the track. While there is a standard for skates, some locos or bogies require special skates and at times some 'juggling' for them to work properly on the layout.

Norm Read

HO WALL LAYOUT REPORT

Since the last report, a little work has been undertaken on the wall layout, despite our attention being directed mostly towards organising the model railway exhibition in October. Most of this work is being done, however, away from the Clubrooms. The new controllers, which will eventually replace the existing ones, are being constructed by Dave Bennett. These controllers differ completely from the last Club controllers in the way they are constructed: from quite an attractive case and utilising a photographic process which is much neater and more reliable than the previous method used.

A new 18 volt supply cable has been run underneath the wall layout along its entire length. This connects to a newly-constructed power supply for these controllers which is mounted to the wall below the layout.

The Read Station area is taking shape and the effect is quite pleasing. Thanks are extended to Glenn Watson for this work.

Anyone is welcome to come down to the Clubrooms and give a hand on the layout. Refer to your program for the times (Wednesday nights from 7.30 - Ed).

Glenn Killham

PROGRAM

OCTOBER

- 4 Fri Exhibition set up
- 5 Sat) 1985 Model Railway Exhibition
- 6 Sun) Liverpool E G Whitlam Recreation
- 7 Mon) Centre
- 11 Fri NMRA Tape-Slide clinic
- 19 Sat Inter-club workshop clinic. Venue and topic to be advised - see Clubroom notice board
- South West Rail Group activities from 6 to 11.30 pm
- 25 Fri Films from the National Film Library

NOVEMBER

- 2 Sat Layout operation
- 8 Fri Members' slide-movie-video night
- 22 Fri Modelling competition and model display, passenger coaches

DECEMBER

- 7 Sat Layout operation and Christmas party
- 13 Fri NMRA tape-slide clinics

NOTES ON THE PROGRAM

NMRA tape-slide clinics to be shown.

11 October

- a Identifying and explaining loco parts
- b Scenicking your model railway

13 December

- a The Lilliputian world - scenery construction
- b Hard shell terrain and zip-texturing
- c Colouring scenery

Friday 8 November - Members' slide-film-video night

Bring along your favourite slides or movies (standard/super 8) or video tape. Please note that if you intend to bring video tapes, advise committeemen of the format (VHS or Beta) and whether or not you can supply the necessary equipment or would like it provided.

Friday 22 November - Modelling Competition and Display

Bring along your favourite passenger coaches and be prepared to formally discuss the prototype or special features of the model.

Saturday 7 December - Christmas Party

This year we are organising a Christmas party in the Clubrooms to which members, their families and friends are invited. Don't miss out as numbers are limited to 70 persons due to the commercial catering which will feature a beef spit (so bring some old clothes in case the cattle start spitting - they spit worse than camels!). The menu also includes sausages (you liked 'em last time); ham slices, frankfurts, salads and dessert.

A charge of \$2 per person, paid in advance, will be required. Please see any of the committee to make your reservation and payment.

Two films will be shown in the evening, followed by the traditional bull session (they'll still be spitting then, so be careful!).

Timetable

1400 - 1800	Layout operation
1800 - 2000	Party - beef spit (filthy animals)
2000 - 2130	Films from the National Film Library
2130 - ?	Bull session

SALES CUPBOARD OFFERINGS

PVA glue (genuine Selley's Aquadhere) straight out of the bulk container, not diluted. \$4.50 per litre in your own container, minimum sale - 500 ml.

Neddle files - six in plastic wallets (made in China). \$6 per set.

Pin vice with wooden handle for those small drills, adjusts to suit drills from approximately 1 mm diameter to 1.8 mm diameter. \$1.50 each.

Foam plastic loco cradles. For HO scale models, but with strip insert suitable for N scale. \$1.50 each.

We also have supplies of M2 (0.4 pitch) x 12 slotted cheese head, zinc-plated steel screws at \$0.20 per 10 screws and M2 (0.4 pitch) x 8 crosspoint pan head nicel plated brass screws at \$0.30 per 10.

All correspondence regarding NSW Branch matters should be addressed to -

The Secretary
AMRA (NSW Branch)
PO Box 194
ROCKDALE NSW 2216

THE DO

The sausage sizzle on Saturday night 6 July was a great excuse to capture on film the prominent faces in the AMRA Clubrooms, and to show how much of a family thing model railways can be. Everyone enjoyed the food - see the happy smiling counter-ances!



Bob and Dulcie Wardrop

John Skilton and George Bray
(right) get stuck into it



O Gauge genius Bert Hetherington
and his granddaughter Amanda



The Aldous family, from left to right.

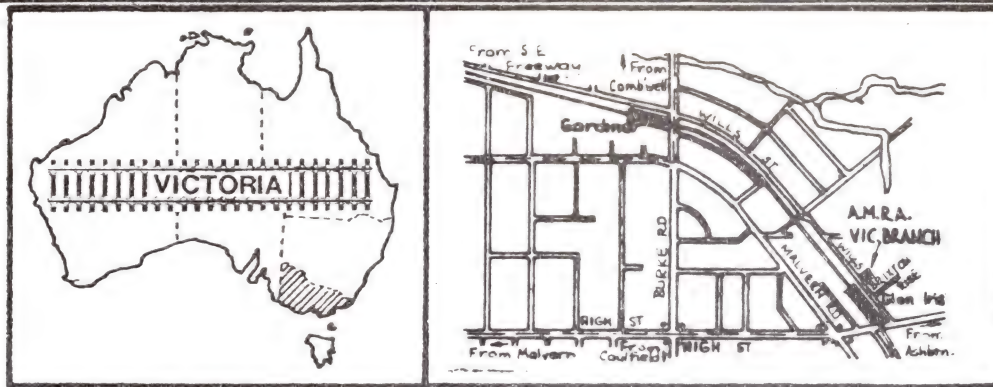
Kay, Alicia, Matthew, Rodney and Keith.

Keith and Matthew are keen modellers and regular visitors to the AMRA Clubrooms.



The Hogan clan.

Val, Ed, their son Victor and his fiancée, Tracy



Branch Secretary - John Harry, 68 Lahona Avenue,
EAST BENTLEIGH 3165

PRESIDENT'S MESSAGE

By the time you read this it will be September and well into the second half of 1985 - how quickly time flies. No doubt by now you will all have had a look at the new Lima Australian rolling stock, but how many of you were able to get items in the old colour schemes before stocks ran out. I just managed to secure a blue and gold S class, plus a couple of ELX wagons. It proves the old adage - he who hesitates...!

While on the subject of waiting till the last moment, may I urge you to get out now and take photos of trains running in this State, particularly on the narrow gauge to Sydney. With the inevitable introduction of the XPT, the future of the Inter-Capital Daylight, the Spirit of Progress and the Southern Auroura, running as individual trains, looks bleak. Also the sight of guards vans on goods trains could well be a thing of the past.

The July Auction Night was again a success, with those present enjoying the sight (and sound) of our Treasurer prizing money out of some very deep pockets. Get your saleable items ready for the next one. While on the subject of Meeting Nights, it will be our objective to get the meetings under way at 8 pm precisely. This will allow us to finish at a reasonable time and enable running on the layout or a social talk over a cup of coffee. It is very gratifying to see the number of entries in the modelling competitions. The job for the judges is that much harder because of the high standard being entered.

A proposal has been put forward by the Layout Committee to remodel part of the existing Club layout to allow for walk-in access in lieu of the present duck-under arrangements. Further discussion will be carried out at the August Meeting where it is hoped to have the matter resolved.

Two important things to remember in the next few months. Firstly, make sure you have sent your membership renewal in. Secondly, actively support your local hobby shop, try to buy something from him each month. Remember, he needs you just as much as you need him.

Geoff Brown

LIBRARY NEWS

After years of grubby existence, the Railfan Shop is now a thing of wonder in its bright and beautiful new premises in Transport House. In the move I guess a lot of stuff came to light, as we all know it does, and amongst it all is just about the best bargain you'll find: Greg Triplett's Highlights of Steam. Photographed mainly in the late 60s, over half the book is of Australian steam, but New Zealand, Taiwan, Indonesia and Japan also feature. Excellent photography, and a nicely produced book of nearly

100 pages. It was published by the ARE in 1971, and here's the thing. It still carries what must have been its original published price - \$4.50! I've just seen it in an antiquarian catalogue at \$15.

Railmac again, with another by Steve McNicol, Preserved VR Steam. A brief, but comprehensive technical description of all the classes that ran in Victoria and have still an example preserved, either on static display or again in steam. Lots of detail, lots of pictures, which give a general impression of each class, but probably, in a book this size, can't be expected to do more.

The Victor Harbor Railway Line is subtitled a Pictorial Review, which ignores the brief descriptions of the stations and the landscape along the line, and the 'brief historical...appreciation' claimed in the Introduction. A nice little book, written by J Ramsey and published by ARHS (SA).

A book with the title Modelling in '000' Gauge (by E F Carter) must inevitably be thought of as a piece of history, which, of course, it is. A fascinating piece. Inevitably it tells of the way that OO/HO scales were regarded when they first appeared (too small to be taken seriously), but it includes lots of practical information on how to actually go about modelling in what we now call N scale. Like, how to actually draw wire to make scale rail, how to make the motors, bit by bit, by hand, and the worm gears from Whitworth bolts, all without a lathe. It should be a challenge to a present-day modeller to reproduce the models described in 1955.

Two other little old-timers which still make useful reading, especially to a newcomer to the hobby. The principles haven't changed all that much, and they were written in a gentler time, when the pressures were perhaps a little less than now, and a beginner could be led more gently by the hand. Ernest F Carter's OO Gauge Layout and Design is one, and P D Hancock's Scenic Modelling the other. This latter is a Railway Modeller Handbook; they later produced another booklet with the same title. Both useful.

The Australian Tram will bring nostalgic tears to the eyes of anyone of my generation or older. A nice little booklet, put out by the Australian Electric Traction Association, lots of historic photographs from various Australian cities.

Robert Kelly calls his Micro-Model Railways 'An introduction to N and Z scales' and a very useful intro it seems to be. I'm often asked what the Library holds about these smaller scales, and I'll be glad to recommend this book to any starter. Not a highly detailed how-to-do-it, but a good introduction to the possibilities and problems of the smaller scales.

And, received on our subscription to Talking Electronics, we have Colin Mitchell's Electronics Notebook 3. Like the earlier notebooks, this

is a collection of bits of information, explained in words of one syllables and sketches at the same level, largely in response to questions from readers. The level varies from 'how to solder' (very useful) to material that leaves this beginner for dead. It starts what I assume will be a series: An Introduction to Computers. Looks interesting.

Brian Southwell
Librarian

FACES AROUND THE BRANCH



Gordon Fox, seen here at the 1985 Exhibition, has since departed for a long overseas trip.

Photo by Roger Lloyd

GENERAL NEWS

July meeting - Auction night - another of our annual occurrences, and again thanks to Stuart Westerman for conducting the auction. He was in his usual persuasive voice for an evening of entertainment and profit.

August meeting was profitable in another way. The original title of the syllabus item, conducted by Roger Lloyd was "How it's done, railway wise". His opening remarks added to the title 'on the minimum amount of money'. Roger then proceeded to describe a number of cost-saving schemes he had used in his modelling.

1 Make your own pointwork. Don't throw away secondhand track; clean it up with a wire brush, use PCB (printed circuit board) for sleepers. Bakelite can be scored and snapped; fibreglass is much stronger, but more difficult to cut. Guillotine it if possible.

2 Build brass superstructures for locomotives. Use shim brass and solder. Chimneys, domes, etc, can be rough turned in a power drill with a file. To clean up excess solder, use burrs (e.g. as supplied for Dremel or the used ones from your friendly dentist). For rivet making, a spring-loaded centre punch works well on shim brass.

3 Scenery techniques - for scatter materials, don't throw out sawdust, plastic foam; collect stone dust, different soil samples (textures and colours) when you travel. To deal with these materials, you will need gauze screens of fairly fine mesh. Some kitchen strainers are satisfactory, panty hose and other fabrics are sometimes

strong enough and by stretching ordinary fly wire diagonally, a finer mesh than normally square can be obtained.

Foam plastic can be chopped in a Kitchen Whiz, but freeze it first.

For colouring sawdust and foam, use acrylic paints (student colours are satisfactory). House latex can also be used. Water the paint down (less for foam, more for sawdust), mix in with the scatter material and squeeze through well, then spread out on newspaper to dry. Because the paint is water based, cleaning up is not difficult.

When mixing colours, think of the seasons. Observe the countryside as you travel and notice the gradation of colour over hills and gullies, under trees and along fence lines and roadsides. Australian colours seem to be more in the olives, greys and yellows.

Keep household spray packs (squeeze types) for scenery work. Zip colour (plaster plus dry colour) is applied last. You need your fine gauze for this too, and is wetted in using the spray bottle. Tile grout can be a source of dry colour.

4 For scratchbuilding, North Eastern Timber proves an excellent variety of materials and superglue is recommended as an adhesive.

Our thanks to Roger for an enlightening and stimulating evening.

COMPETITION RESULTS

Open Modelling Competition

Buildings

W Morehouse	Building at Ringwood	76 points
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Kit Conversion

B Race	Car transporter wagon	68 points
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SOCIAL EVENING

Saturday 17 August was a new experience for about 30 members and their partners. Thanks to the organisation by Elizabeth Secker and Marie Lloyd, we shared a meal and company at the Clubrooms. The atmosphere was friendly and informal, and the conversation had not flagged by going home time. Thank you ladies for the idea and the opportunity.

OPEN WEEKEND

Our open weekend at the Clubrooms on 23 and 24 August can only be described as a resounding success. The weather was ideal, with cool temperatures and just a little rain. We sold 686 adult and 360 children's tickets. The ladies at the food and drink counter did a roaring trade with coffee, tea, soft drinks, home made cakes and sandwiches, biscuits and lollies. Many thanks to the girls for their efforts.

The ever popular U-drive for the little ones contributed \$30 for the weekend.

The Hornby Collectors Group stole the show with their big 0 gauge layout which not only featured electric and clockwork, but live steam as well. It certainly created a lot of interest, nostalgia for the older visitors and sheer wonderment for the newer generations. A very big thank you to Frank Shearan and his group for their time and efforts.

And lastly, on behalf of the Layout Construction Group, I would like to say thanks to all members who made this Open Weekend into the success that it was.

W M Secker
Layout Manager

PROGRAMSEPTEMBER

- 12 Thur General Meeting - running night
Last run on present layout
Model - Australian Produced Kit
Photo - Model livestock facilities
- 29 Sun 1.30 pm - Running day - your equipment

OCTOBER

- 10 Thur General Meeting - slide presentation
Model - Open (standard categories)
Photo - Prototype rail over road bridge
- 27 Sun 1.30 pm - Running day - your equipment

NOVEMBER

- 9 Sat 1 pm - Layout Visits
Meet at Clubrooms
- 14 Thur General Meeting - loco hauling - draw-bar test your best loco on 9, 16.5 or 32 mm track
Model - Australian Produced Kit
Photo - Model rail over road bridge
- 17 Sun 10 am - Working bee
- 24 Sun 1.30 pm - Running day - your equipment

DECEMBER

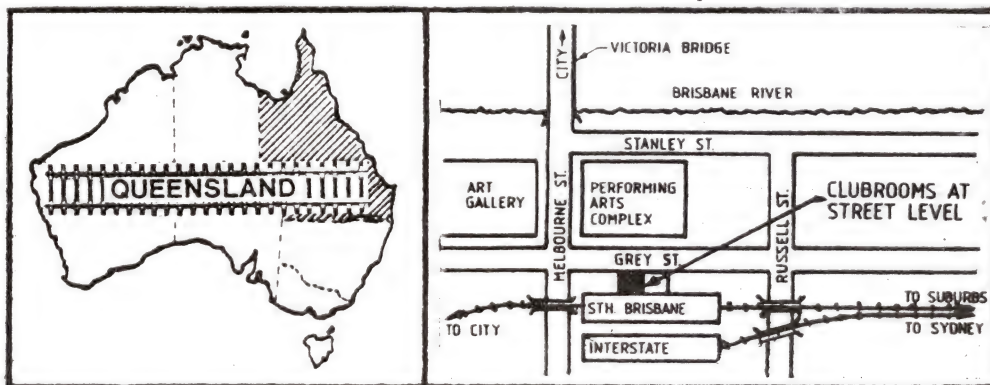
- 12 Thur Christmas Meeting
Model - Open (standard categories)
Photo - Prototype water tower/tank
- 29 Sun 1.30 pm - Running day - your equipment

General Meetings are held at the Clubrooms on the second Thursday of each month, commencing at 8 pm. The Clubrooms open at 7.30 pm for operation of your train on the Club layout prior to the meeting.

Construction and maintenance on the Club layout is held every Tuesday night, except the Tuesday before general meetings. Special operating days using Club equipment are held on the first Sunday and running days for your own equipment (subject to operating tests) are held on the last Sunday each month, commencing at 2 pm.

CLUB LAYOUT

The meeting agreed that the projected alterations to the layout should proceed, and September's meeting will present the last opportunity to run on the present formation.

FROM THE PRESIDENT

Most members will have noticed that two other state branches have ceased producing local newsletters and are now relying on Journal for contact with members. It was decided at the July General Meeting to bring Queensland Branch into line with the other states, so this will be the last regular Greenboard you will receive. The Queensland section of Journal will keep you informed of happenings.

I say 'regular' because it was felt we should keep contact with members, especially at the times of special events so a newsletter will be sent at exhibition times as we feel we need all the support we can get at this time. The Branch will save a lot on postage and the situation will be reviewed in six months to see if it is working.

At the Clubrooms the price of drinks will be raised to 50 cents, and members are asked to remember the 20 cent donation towards the cost of cakes, etc, for supper. We have been getting lax in this area, so your attention is requested.

The QR promotional layout is finally on view at Platform 1 dock during the Brisbane RNA Exhibition. Reports are good with very complimentary comments being received.

Expo 88 is moving nearer and preliminary plans are being drawn up for the South Brisbane Station Building. The whole building is to be refurbished and this will mean we will have to work in with the contractors. A suggested layout of the building shows us in the upper opposite end to our present location. It is too early to plan at this stage, but members will be kept informed of developments.

Cec Wall

FROM THE SECRETARY

I would remind you that membership renewals are due on 1 September 1985. If your renewal is not submitted before the posting of the next Journal, you will be required to pay the postage of 90 cents. This is because AMRA cannot avail itself of the relatively low bulk postage rate and must endeavour to contain ever rising costs. If you have misplaced the form, I can provide you with another.

The past membership year has seen an increase in new members, quite a few having joined since the May exhibition. Let us all try to maintain this growth. It has been my policy when receiving an enquiry to suggest to anyone interested that they attend at the Clubrooms a number of times before making a decision on joining. Please make them welcome. We oldies may be able to learn something from a newcomer.

Members who have joined in the last few years and not received an AMRA badge, please let me know so one can be issued to you.

Jim Christie

QR LAYOUT NEWS

After the AMRA Exhibition, the layout was delivered to the QR, and soon after they installed it in the specially prepared QLX Box Louvre Bogie Wagon. The large double doors on one side open for visitors to enter and leave and some fancy striped shades open out over the entrances. The wagon is carpeted inside and layout is behind a wall which allows the layout to be completely viewed through lockable sliding glass windows which also allow access for maintenance, etc. The double doors on the other side allow entry

for operators and access to the 'return' tracks. The exterior of the wagon is painted in the new electric loco colours of orange, green and white.

The first operation of the layout has been the 10 days at the Brisbane RNA Exhibition, and, as Cec reports, good comments have been coming from all sorts of visitors. Most are usually baffled by how the coal is loaded and unloaded as reported in the last AMRM. The layout and rolling stock has been performing good; however, dust is the main problem, and as it is a Louvre wagon, this doesn't help. Locos usually need servicing every few hours because of this.

Fortunately, the QR has chosen to use members and friends of the Branch who are employees of the QR to operate and man the display, thus contributing greatly to the display's smooth operation. Next the layout will be removed from the wagon and placed on show at a Careers display at the racecourse at Ascot. Again Branch members have been rostered to man the display. The layout will be placed back in the wagon and then head to Central Queensland to show the locals what Electrification of the Queensland coal lines will mean.

ANNUAL GENERAL MEETING NOTICE

Members are reminded of the Queensland Branch Annual General Meeting to be held at 7.45 pm on Thursday 24 October 1985 for the reports from the Committee of Management and election of Officers for the coming year.

CLUBROOM NEWS

At the Clubrooms, the Hill family has been busy with some fine S scale modelling. John has just completed an older style QR guards van which has many fine features, including detailed interior and working tail lights. Matthew has been painting his QR 1400 DEL with some paint obtained from the full size boys by Paul Scrivens. John has been recently helping Simon with a 2350/70 class DEL which uses an Airfix A1A-A1A OO scale Mech.

Bert Batch is making good progress with his 4-6-0 V&T HO scale steam loco built from brass. It is powered by a can motor with Romford gears and wheels.

James Yuille has started a new scale in the Clubrooms to make more use of the 12 mm track system - Sn2½. An interchange at Bijimbee is planned - similar to that at Palmwoods when the 2'6" gauge line climbed up to Buderim. James is rebuilding a Berliner Bahnen 0-8-0 TT gauge loco to suit.

Paul Doyle, an OO scale English modeller, has been doing something not normally seen for OO enthusiasts. He's been heavily weathering his rolling stock and is quite pleased with his efforts.

Many items of American HO rolling stock have seen use on the Branch layout recently. Some fine Rivarossi models from Barry and Cec's collections have been seen in operation. Those articulated ones look and run real good on the Club layout.

Another running day has been programmed; this being on the third Thursday evening of the month.

Mr Johnman's two workshop nights on wagon construction were well attended, and proved most interesting and informative.

At the July meeting, Warring Geddes gave an interesting insight into an important part of model railway electrics - the transformer - an interesting and efficient machine which has no

moving parts.

At the August workshop night, Cec Wall started everyone interested on the 'flasher'; a simple IC unit mounted on a Pc board - proving to be an interesting soldering exercise for all.

It has been suggested that certain members be allocated the tasks of looking after various areas in the Clubrooms. Your comments on this matter are welcome.

On running days, please abide by the directions of the member allocated the task of running session supervisor (usually the controller). Your assistance in this regard will greatly assist in the smooth running of the layout. If you do bring a train to run, please inform the controller that you have and he/she will advise you where to stage your train and if/when a road controller will be available.

BRANCH TIMETABLE

Meetings continued as normal at the Clubrooms, Ground Floor, South Brisbane Railway Station, Grey Street, South Brisbane. The Clubrooms are open from 6 pm on Thursdays and from noon on Saturdays. Now that most of Grey Street is closed for Expo 88, the Clubrooms are in a dead end section and more nearby parking is available to those who arrive early.

SEPTEMBER

26 Thur Monthly meeting with talk on 'Improving Ready to Run'

OCTOBER

3 Thur Layout running session
5 Sat Clubroom layout work day
10 Thur Workshop evening - talk on 'Tarping Your Wagons'
17 Thur Morning meeting for retired members
17 Thur Evening - layout running session
19 Sat Layout running session
24 Thur Branch AGM with 'Jim Bilby slide quiz'

NOVEMBER

2 Sat Clubroom layout work day
7 Thur Layout running session
14 Thur Workshop evening with talk on 'Kit Construction'
16 Sat Layout running session
21 Thur Morning meeting for retired members
21 Thur Evening - layout running session
28 Thur Monthly meeting with talk on 'Plans'

AROUND THE TRACKS

by Edward W H Ward

The plastic straws which come attached to the side of those 200 ml cartons of fruit drink are semi-transparent and part rigid. They have an internal diameter of 3.5 mm and a length of about 90 to 100 mm.

Although they are not made of nylon, which would be a better material for one use suggested here, they do make a useful duct for moving cables for cable operated points. They are ideal for routing cables through woodwork, where, by lining the hole drilled through the woodwork with a piece of drinking straw, they cable is assured of easy movement to and fro.

Didja hear about the locomotive that contacted aids?

It was a Rock Island Hudson.

AN INTERESTING ROLLING STOCK MOVEMENT

by E W H Ward

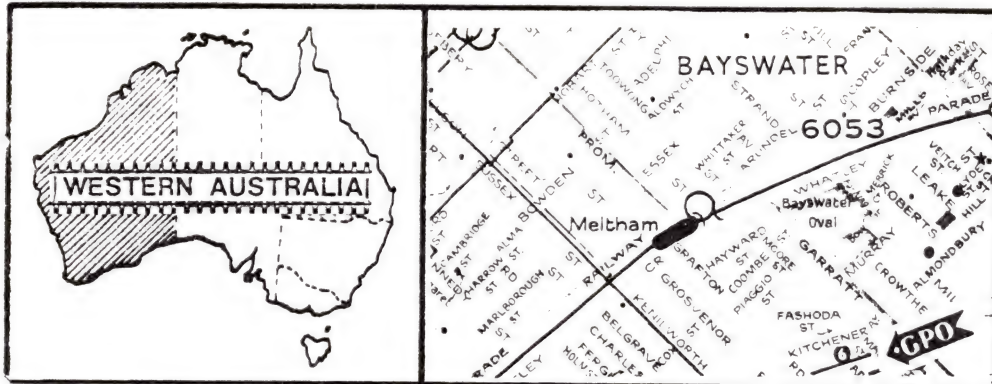
An interesting rolling stock movement for which a prototype exists is the movement of a piece of rolling stock from the repair shops to the nearest turntable, 'ROTATE and RETURN'.

This would be done to facilitate some workshop requirement, where the vehicle arrived at the shop facing the wrong way, and had to be turned about for servicing.

This happens regularly on the QR where the main rolling stock workshops are at North Ipswich and the nearest turning device is a turntable at the main Ipswich station, a mile or two south. The workshops used to have a steam locomotive roundhouse nearby in the old days, and this rolling stock movement would not have been such a big affair.

At the other end of the system, the QR had to install a turntable at Jilalan, a main servicing centre for the Goonyella coal line. This was because wagons returning from shops after work sometimes arrived the wrong way around, and due to the coal wagon tippers and the rotary couplers at one end, the wagons must be the right way around to work in the coal trains.

One of our less productive members has made a firm vow that, starting next weekend, or the weekend after, he is going to assemble one of those kits he bought five years ago, if he can find his tube of glue.

EXTRACTS FROM BRANCHLINETHE 1985 MODEL RAILWAY EXHIBITION

The standard of the exhibits at the Model Railway Exhibition was very high - congratulations to all those who displayed the results of their efforts. My thanks also to all those who gave of their time to help run the Exhibition, particularly the ladies who slaved over the hot stoves all the weekend to keep us, and the public, fed and watered. Alan Porter reports on the Exhibition in more detail elsewhere in this issue.

Ted Thoday

WANTED : GUINEA PIGS

No, not the small rodent type, but human ones. Through the good offices of a couple of members who have the appropriate equipment, the Branch has embarked on a fascinating experiment into the production of video tapes of the major demonstrations conducted at Branch meetings.

If the initial trials prove successful, it is intended that the tapes will become part of the branch Library stock and be available to members in a similar manner to the Library books. The tapes are aimed primarily at those members who are unable to attend the meetings at Meltham,

The following is with apologies to Jack Moses:

In days of old, when our land was new,
Scholars then, were very few
A horse, on a horse drawn tram dropped dead
In Castlereagh Street, it is said

Policeman Nine was standing by,
And saw the neddy fall and die
On this at once, I must report,
But how to spell Castlereagh, he thought
God bless the force, they're never beat,
He dragged the horse in to K-I-N-G Street.

Definitely a railway modeller's wife. One of the charming ladies who accompany their husbands to the Saturday afternoon meetings at the Grey Street Clubhouse was observing the dust falling from the brickwork as holes were being drilled to affix the painted backgrounds. She was heard to comment "Shouldn't we be saving that dust? It might be useful for something."

It could only happen in a Model Railway Club!! One of the wooden chairs in the Clubrooms at South Brisbane suffered the breaking of one of the wooden rungs between the legs. It was remedied with a touch of white glue, but a clamp was also needed. Where else in the world would you see an old kitchen mincer (normally used for grinding scenic foam) firmly clamped to its undercarriage.

particularly those living outside the metropolitan area.

What does the 'guinea pig' need? A video cassette recorder to VHS standards, plus a colour TV set. We want you to view the tape (and any accompanying notes) and let your Committee have your assessment of it. There will be a questionnaire to help you.

Interested? Let the Branch Secretary have your name and address. For this 'trial', the Branch will pay outward postage (\$1.20), the 'guinea pig' is to pay the return postage (\$1.20).

Subjects which have been covered so far are as follows:

- . Graham Watson presenting his demonstration on 'Silastic Moulding'
- . 'Bring and Show' at Meltham on 12 June 1985
- . Ted Thoday's presentation on 'Better Soldering' on 1 July 1985

The tapes have been produced in front of a live audience at Meltham.

CO-OPERATION

I would like to relate a little story of what I think AMRA is all about - co-operation between our members.

The WA Branch had sent some subscription renewals and new membership joining fees and sub-

scriptions to the Federal Registrar a few days before the mailing list for the April issue of Journal closed. There should have been enough time for them to be included in the April mail out of Journal, but there's 'many a slip twixt cup and lip'. The letter was sent to the wrong address for the new Registrar and the list was not received in time to include these members' Journals when all the Journals were posted.

Norm Read, our new Federal Registrar, upon eventually receiving this list realised that it would cost these members extra money to have their copies of Journal sent to them after the April bulk posting had been done. Norm phoned me to see if I could help in getting the parcel of Journals to Perth. Fortunately I was able to assist as a friend of mine was travelling to Perth on 11 April and the Journals were delivered to the WA Branch Secretary on Tuesday 16 April for us to distribute to the members, thus saving them the cost of the extra postage.

To me, Norm's action in doing this is the spirit of co-operation that exists and keeps this great Association going so strongly. Norm would have had to pay for the phone call to me and also deliver the parcel across Sydney (about nine miles or 14.4 km each way), that in itself no mean feat in Sydney traffic for one not so young as some of us.

So to Norm, I would like to say 'Well done'.

Gus Durham

LAYOUT NOTES

HALTWHISTLE LAYOUT

The Haltwhistle layout, under the guise of 'Beaconsfield', performed reasonably well at the Exhibition and certainly had that Great Western 'look' we had been aiming for.

I would like to thank all those members who supplied rolling stock for the occasion and also those members who had the task of transporting, setting up and operating the layout for the three days, who at times were operating under considerable adversity. I must particularly thank Peter Dean who, in addition to putting in a considerable effort himself during the preparation and operation of the layout, also co-ordinated its manning and operation during the Exhibition. Not least of the problems encountered were the point motor power supply unit which gave up the ghost on the Saturday morning and the transformers that were lost in transit and did not turn up until lunchtime Saturday.

COLARADO PACIFIC RR

The basic framework of all the baseboards of the new N gauge layout, now known as the Colorado Pacific Railroad, have been completed, as have the layout's trestle legs. The next step will be to construct the track bed and then track-laying can commence.

Simon Mead
Layout Manager

PRODUCT INFORMATION

'NO MORE GAPS' - this wonderful material (a Selley's product) is an ideal filler for the trunks of your model trees made by the twisted copper earthing wire technique and is available at WA Salvage Company's Cannington store, Albany Highway. The price is \$1.25 for a small tube - brown or white, which is somewhat cheaper than elsewhere.

Dick Smart

RAILWAY MODELLING COMPETITION

Another Railway Modelling Competition, open to all modellers, is to be conducted by the AMRA (WA Branch).

The Competition will be held at the Alma Venville Recreation Centre Function Room, Eighth Avenue, Maylands, on Saturday and Sunday 19 and 20 October. Judging will be conducted on the former day.

Entry forms must be lodged by Friday 11 October 1985 with -

The Competition Manager
AMRA (WA)
PO Box 60
MAYLANDS WA 6051

The entry form will be available from mid August from hobby shops, the Secretary AMRA (WA), AMRA (WA) Clubrooms and the Secretaries of other model railway clubs.

There will be an entry fee of \$2 per person (regardless of the number of models entered) which should accompany the entry form.

The Competition will be judged in the following categories:

1 Locomotives

Scratchbuilt
Kit built/modified
'Ready to run' modified

2 Rolling Stock

Scratchbuilt
Kit built/modified
'Ready to run' modified

3 Structures

Scratchbuilt
Kit built/modified
'Ready to use' modified

Trophies will be awarded for all categories. There will be a special trophy. 'The Ossie Gully Cup' for the best model overall. Also, there will be a trophy for the best model, overall, of a Western Australian prototype and for the best model, overall, by a junior (under 16).

Entries should be delivered to the Alma Venville Centre, Eighth Avenue, Maylands, between 10 and 11 am on Saturday 19 October for judging. Presentation of trophies will take place at 4 pm on Sunday 20 October at ModelRail '85 which is to be held at the same venue as the Competition. Free passes to ModelRail '85 will be made available to Competition entrants and their families.

The rules for the Competition are to be found on the back of the 'Judging System' sheet which accompanies the Entry Form. For further information, ring Simon Mead on 276 8745 or write to The Competition Manager.

LIBRARY NOTES

Well, another Exhibition is over so we can now get back into normal routine and do some more cataloguing. It's certainly a long time since we spent a whole night on it.

I would like to reiterate the Club Library Rules on Project meeting nights and afternoons. The Library is closed to the members while work is in progress on a Project Meeting, opening when the billy boils and at the end of the evening or afternoon. Would all members please observe this rule which is to be enforced from Monday 15 July. Maybe, it's our own fault for taking the door off the Library room and making it the most comfortable room at HQ. The recent project putting cushions onto the hard plastic chairs will 'worsen' the problem of members lingering

in the Library instead of participating in the projects on hand. At last, no more cold seats - deep joy!

The books we've acquired for the Library since the last issue of The Branchline are listed below:

THE PECO BOOK OF MODEL BUILDINGS

06057

This book is the answer for those members toying with the idea of scratchbuilding your own buildings. Its superbness is, I suppose, the one thing that could put you off. The author in his postscript says (and I quote) "It is rare for me to be satisfied with any model I've produced." If I could build anything half as good as Mike Gill's, I'd be more than satisfied. See Peter Dean if you want to buy one for yourself - there may still be a few available from the Sales Cupboard at \$9 each.

RAILWAYS OF THE WESTERN REGION (Geoffrey Body)

00164

One of the PSL Field Guides in a series of six covering the British Isles; it provides wide-ranging descriptions of railways and railway activities, covering the operation and hardware of a modern railway network and also the origins and special features. The book is a gazetteer containing over 160 photographs and almost 40 maps. Geoffrey Body started as a booking clerk with the LNER in 1945 and finished as Marketing Manager of the Bristol Region of BR, so is amply qualified to 'talk' railways. An excellent book full of useful information for those into the British scene.

THE ILLUSTRATED ENCYCLOPEDIA OF THE WORLD'S STEAM

PASSENGER LOCOMOTIVES (Brian Hollingsworth)

00165

A technical directory of major international express train engines from the 1820s to the present day.

THE ILLUSTRATED ENCYCLOPEDIA OF THE WORLD'S MODERN

LOCOMOTIVES (Brian Hollingsworth/Arthur Cook)

00166

A technical directory of major international diesel, electric and gas turbine locomotives from 1879 to the present day.

These two encyclopedias are currently on sale in most bookshops and newsagents for around \$29 - rather expensive! However, K-Mart had them on special recently for \$6 each, and at that price, they were too good to miss. They are both full of photos, prints, detail and historical detail on locomotives around the world.

That's it for this time. Keep an eye open for those book bargains. I'm now starting to research the railway built to service the Oliver Hill Batteries and Kingstown Barracks on Rottnest Island with a view to producing it in model form. If any member has any photographs or knows about the subject, I would love to hear from them.

Until next time.

Hirus Manuscriptus

During a recent discussion on etched brass kits, particularly the Blacksmith/Mallard range, a number of members suggested it would be very useful if a manufacturer of these kits produced a separate fret of small components such as door hinges, lamp irons, etc, which have a wide spread use on all railways. I took this point up with David Smith of Blacksmith Models: he tells me that he can supply the floor fret of the GWR Siphon G/H kit which contains these items separately from the vehicle kit. Apart from the vehicle floor

and the various V hangers, etc, there are 77 door hinges, 50 strapping corner plates of various types, six lamp irons, 10 footsteps, three coupling hooks, plus a number of small parts for the brake gear linkages, etc. Fret No 431005-2, no price quoted, but I would guess about £3 to £5. David says he will be producing frets of steps, lamp irons, brake gear, etc, in the near future. He also says that he has information on Coal Wagons which indicate that he may be able to produce as many as 10 different diagrams from the one kit.

The Mallard range of signal frets will eventually be re-released. However, if anyone is interested, he has 'a couple of spare frets of the signal arms at 50p each' - first come first served.

It's good to see a manufacturer taking note of what the customer is interested in.

Ted Thoday

DAPOL MODEL RAILWAYS has written to its agents world wide in June to tell them that agreement has been reached with Palitoy and General Mills for the transfer of the MAINLINE section of Palitoy to Dapol. This was taking place in June and was expected to be complete by the end of 1985. Dapol advised that 'at the present time, Palitoy are selling off some of the current stocks at half price - in the future when all these surplus stocks have been exhausted, there will be no more available at the same prices'. The only Mainline item, on which work had been completed, is the 12-wheel dining car and should appear late in December. Due to the extra work load associated with the take over of Mainline, Dapol's J94 and Castle are slightly delayed. In the future, the Mainline name will become second to Dapol and all remakes will appear in Dapol boxes. Also, Dapol has obtained a number of the old Airfix Trackside Kits tools (apparently well worn) from Palitoy and it is hoped that some of these will reappear.

Seems to be a good time to stock up on Mainline!

Nonny Mouse

PROGRAM

SEPTEMBER

- | | | |
|----|-----|---|
| 21 | Sat | Timetable Operations at Haltwhistle-on-Tyne |
| 25 | Wed | Club Projects Evening |
| 30 | Mon | General Club Activities |

OCTOBER

- | | | |
|---|-----|--|
| 7 | Mon | 'Minitalks' - five or six individual talks on different subjects by Club members |
|---|-----|--|

Got anything to get off your chest? Want to tell all the members about something in the hobby that you know a lot about and you want to share it with them? Well, we're going to make it easy for you - we'll 'rent a crowd' to hear you say your thing. And if there are not enough 'volunteers' for this, your Committee will be around with the whips to get five or six speakers. Don't miss it!

- | | | |
|----|-----|-------------------------|
| 12 | Sat | General Club Activities |
| 16 | Wed | 'The Shunting Puzzle' |

Our 'Shunting Puzzle' proved such a success at the Model Railway Exhibition that we're going to have a few competitions with it to see who among the members can shunt the yard -

- a fastest;
 b slowest;
 c with the least number of moves;
 d with the greatest number of moves.
 We're told that the younger people have the best lateral thinking powers, so, 'oldies', don't let them show you up - you show them how!

- 19 Sat 1985 Railway Modelling Competition
 See elsewhere in this issue for full details
 20 Sun 1985 ModelRail Convention
 See elsewhere in this issue for full details
 21 Mon Timetable Operations at Haltwhistle-on-Tyne
 26 Sat Club Projects Afternoon
 30 Wed General Club Activities

TIMES OF MEETINGS ARE AS FOLLOWS:

Mondays and Wednesdays 8 pm
 Saturdays 2 pm

All meetings will be held in the Clubrooms, upon Meltham Station, unless otherwise stated. The rooms will be open 15 minutes earlier than above.

1985 MODEL RAILWAY EXHIBITION

The 1985 Model Railway Exhibition was quite successful from a financial aspect, and it certainly did much to promote the hobby of model railways. The attendance over the three days was 5773, which is quite a bit below the 8331 of last year. I think we staged a better Exhibition than last year and, as a result, we were able, I believe, to offer better 'value for money' to our patrons. In no small measure, this improved quality came from better presentation of the exhibits by exhibitors - it's sobering to look back at the photographs of our early exhibitions and see how primitive they really were.

Les Hayter's 'York' entered in recognition of the anniversary of the arrival of the railway in York (WA) in 1885 was the most popular exhibit by public vote, as well as being assessed as the best model of a railway by a panel of fellow modeller judges.

I must thank all those who helped out in the mounting and the running of the Exhibition - the members of the Committee, the gallant gang who put up all the barricading (and drank our beer!), the exhibitors and the ladies who did such a stirring job feeding the AMRA members and the public. Thank you all for your support.

I hope that the Exhibition has inspired members to think of building a layout for entry in next year's Exhibition. As explained elsewhere, the format and location for next year are still not clear, but it is almost certain that the smaller type of layout and display will have the best chance of inclusion.

Alan Porter

VIDEO REVIEW

RAILSCENE - THE RAILWAY VIDEO MAGAZINE

Railscene Limited
 PO Box 1
 Kings Somborne
 STOCKBRIDGE SO20 6NQ
 HANTS UK

VHS or Beta format £ 9.95

A new innovation for the railway enthusiast

from the UK with four issues per year. Each tape lasts for about an hour and each follows a similar format with the latest news of railway events opening and closing the tape. also included are a 'cab ride' along a selected route of interest, a feature on one of the preserved lines and an archive film. More complete details of the contents of each issue so far produced are given below.

The standard of the film clips is very good throughout, and some of the shots I would consider to be truly superb. Unfortunately, the first issue utilised a very drab and uninteresting commentator, but this has been corrected for all issues thereafter by the professional commentary of Nigel Farrell of the BBC. I found the commentary quite excellent in Railscenes Nos 2 and 3 and thoroughly recommend them - the next issue is eagerly awaited. For details of the availability of these video tapes and where they may be obtained, please contact the Branch Librarian (WA).

RAILSCENE NO 1 (Autumn 1984)

BR news - Class 150 DMUs, Wembley crash, new liveries. Cab ride - view from the cab of a Hastings DEMU over the line from Hastings to Tonbridge, currently being electrified. 'Main Line Diesel' - black and white film by British Transport Films covering the construction and introduction of the first British main line diesel, LMS No 10000. 'Moorsrails' - a feature on the superbly scenic Yorkshire Moors Railway, including K1 No 62005 in BR black livery. News - BR main line steam, unusual events, etc.

RAILSCENE NO 2 (Winter 1984)

Newsline - Scotrail, new liveries and logos in Scotland. Cab ride - view from the cab of a Class 47 over the Highland main line from Perth to Inverness. Preservation - the Severn Valley Railway, a feature on the leading, if controversial, preserved line in the Midlands. The start of restoration of Bulleid Merchant Navy No 35010 'Blue Star' - its journey from Barry to London. 'Engine on Shed' - archive film produced by the LMS in 1936 in black and white, featuring the unique No 6170 as first rebuilt by Stanier with a taper boiler and single chimney (the commentary is fascinating). News - featuring autumn and winter specials on BR, Santa and Mince Pie specials, etc.

RAILSCENE NO 3 (Spring 1985)

Newsline - Carlisle 150. Cab ride - view from the cab along the famous South Devon main line between Dawlish and Teignmouth and over the Dainton and Rattery banks to Plymouth. Preservation - The Mid-Hants Railway, the controversial 'Watercress Line' which is rebuilding the route to Alton and a connection to BR in 1985. 'Single Line Working' - extracts from a 1956 training film made by British Transport Films on the Somerset and Dorset Railway. News - featuring Perty open day, steam specials, East Anglian electrics, BR news, etc.

MODELRAIL '85

ModelRail '85 will be held over the weekend of Saturday and Sunday 19 and 20 October 1985, as a combined Modelling Competition and Mini-Expo. The Modelling Competition will be

held on the Saturday with the Mini-Expo on the Sunday. The venue will be the Alma Venville Recreation Centre Function Room, Eighth Avenue, Maylands.

The Mini-Expo on the Sunday will follow the basic format of last year. The room will be open for setting up the Mini-Expo between 8 and 10 am, open to the public from 10 am to 5 pm and we will take down the displays between 5 and 6 pm. We will need some assistance on the Sunday with the setting up of the room and with the manning of a small number of AMRA operated areas. If you can assist in these, please let me know as soon as possible. I will be contacting those exhibitors/demonstrators who are being invited to participate.

The object of the Mini-Expo is to show interested modellers some of the more sophisticated and specialised equipment which is available and to have demonstrators who are able to talk about the equipment and demonstrate the techniques and tools used, all in a relaxed atmosphere.

Ted Thoday

BOOK REVIEWS

MAKING MODEL BUILDINGS

by Stuart Dalby

ISBN 0 7137 0976 6 95 pages 190 mm x 253 mm
Blandford Press \$13.50

The author describes the building of models of the Globe Theatre, Wordsworth House, Fort William, Harlech Castle and Oakworth Station.

One section is devoted to each model and gives brief historical information on the prototype, followed by a detailed list of the tools required, a complete list of materials, including a cutting list for the various pieces of wood and card, etc. The modeller is then taken step by step through the whole process of marking out, cutting, assembly and detailing and painting, by way of written text, drawings and photographs. Each drawing is numbered and the text refers to these numbers, making following the procedure quite simple.

Except for Oakworth Station (to 4 mm scale), no scale is given for the other buildings, although from the part dimensions they would appear to be of the order of 7 mm to 10 mm to one foot.

A useful book for anyone contemplating scratchbuilding model buildings, particularly in the larger scales.

NEW MAGAZINE

Wild Swan Publications Ltd, one of the smaller UK railway publishing houses who have been producing titles of comparable quality to those of the Oxford Railway Publishing Company, have commenced the publication of a quarterly journal for the fine scale model railway enthusiast, concentrating on 2 mm, 4 mm and 7 mm scales, but with the emphasis on 4 mm 18.83 and EM to British outline. A 'pilot issue' (No 0...!!) was issued in the Winter (Northern) and regular copies should follow at three month intervals. The first issue of MODEL RAILWAY JOURNAL (No 0) had articles on the following:

- 'Laxfield', a model of the prototype terminus of the Mid-Suffolk Light Railway, built to 18.83 gauge by John Watson - superb!
- Making a model of a GER 'M12' 0-6-OT shunting tank by Iain Rice.
- Searching for a low-visibility auto-coupling by Philip Hall. A modification of the Derek Munday 'Sprat and Winkle' TT couplings.

- 'Portfolio' - pictures of George Iliffe Stokes' superb buildings.
- Monty Wells builds the first etched brass kit from Modern Outline Kits, a Class 40 diesel and gives a very critical, fair and praising review.
- Loads of information (drawings, photographs and words) about the goods shed at Ross-on-Wye.
- 'Aylesbury LNWR', an 'attic bound' EM layout by Geoff Williams built some 20 years ago - also superb.
- Details of buildings models of GWR baulk road pointwork.

The magazine is printed on glossy, good weight paper a little smaller than Model Railway Constructor. There is not a lot of advertising material (four pages out of 48), and it is all at the front and the back of the magazine. The editors claim they will 'attempt to demonstrate that fine scale modelling is widely attractive and open to more than the small elite of humorless geniuses which serious modellers are sometimes wrongly perceived to be by those considering improved standards for the first time'.

One or two of our members will be taking out subscriptions to this magazine as it is unlikely that the commercial magazine distributors will bring it to Australia initially anyway. Anyone interested in seeing a copy should contact me.

PS Another 'new' magazine which has not (to my knowledge) been seen in Australia and which I found on my visit to the UK earlier this year is 'LOCO MODELLER'. I have No 2 of Volume 1 dated November 1983, but whether it has continued to 'kick on', I do not know. It appears to be the end result of one man's efforts - the editor, one John Paige, as the publisher is JP Enterprises. I intend to find out whether it is still alive and well. The issue I have contains articles on the following:

- Building the K's GNR Ivatt large Atlantic
- Review of the Nu-Cast N scale Stanier 4P two-cylinder 2-6-4T kit
- Reviews of Dart Castings and Wills Scenic ranges
- Technical data of Milliput filler
- Building the D&M Castings' LMS 2-6-4T Class 4P three-cylinder kit
- Building the Websters GWR 'Toad' in O scale
- Review of the (then) pending new releases from Mainline

Alan Porter

HAVE YOU SEEN?

Model Railway Constructor

APRIL - Nurnberg Toy Fair 1985. 'Wateringbury', a scale model of a SECR station in Kent with detailed drawings of various buildings. More on the Brook Smith track making method. Review of the Perseverance Models' LMS 57 ft Auto-coach kit. Constructing etched brass kits.

MAY - Additional livery, etc, details on the BR D7XXX 'Hymek' class of diesels. Making trees, one every four minutes by the 'bottlebrush' method. Local freight workings north west of Manchester. Constructing a broad gauge 2-2-2 'convertible', with prototype photographs, details and drawings. The Trix-Triang 'whisky' wagons. Datafile - Wateringbury Station, SECR. Review of Fell Model Engineering's battery powered diesel outline NG loco. More on the Brook Smith method of track making. The final article on constructing the L&B Manning Wardle 2-6-2T. Review of the 3 mm Society's new 12 mm gauge flexible track.

MORE MATCHBOX MODELS FROM THE NONNY MOUSE ARCHIVES

CAT NO	YEAR	DESCRIPTION	COLOUR(S)	SCALE
54	1959	Saracen Troop Carrier	Green	1/86
	1966	Cadillac Ambulance	Cream (White in 1967)	1/87
	1971	Ford Capri	Orange and Black (Crimson in 1975)	1/59
	1977	Personnel Carrier	Green	1/59
55	1959	DUKW Amphibian	Green	1/70
	1963	Ford Fairlane Police Car	Metallic Blue	1/80
	1966	Ford Galaxie Police Car	White	1/73
	1969	Mercury Police Car	White	1/72
	1976	Hell Raiser	White	1/49
	1980	Ford Cortina 1600GL	Yellow	1/72
56	1959	London Trolley Bus	Red	1/137
	1966	Fiat 1500	Green	1/64
	1970	BMC 1800 Pininfarina	Orange (Metallic Yellow in 1972)	1/64
	1975	Hi Trailer	White	1/58
	1980	Mercedes 450 SEL	Blue	1/64
57	1959	Wolseley 1500	Yellow Green	1/70
	1961	Chevrolet Impala	Two tone Blue	1/80
	1966	Landrover Fire Truck	Red	1/77
	1970	Eccles Caravan	Cream and Orange	1/76
	1975	Wild Life Truck	Fawn and White	1/67
58	1959	BEA Airport Coach	Blue	1/130
	1963	Drott Excavator	Red	1/60
	1968	DAF Girder Truck	Red and Tan (Red and White in 1969 and Red and Metallic Yellow in 1970)	1/94
	1973	Woosh-N-Push (!!)	Yellow and Red	1/60
	1977	Faun Dumper	Yellow	1/65
59	1959	Ford Thames 'Singer' Van	Light Green	1/64
	1964	Ford Fairlane Fire Chief Car	Red	1/80
	1966	Ford Galaxie Fire Chief Car	Red	1/73
	1970	Fire Chief Car	Red	1/73
	1976	Planet Scout	Green and Yellow	1/73
60	1959	Morris Pick-up Truck	Blue	1/75
	1967	Site Hut Truck	Blue, Yellow and Green	1/92
	1972	Lotus Super 7	Tan (Yellow and Red in 1976)	1/51
	1978	Holden Pick-up	Red and Yellow	1/64
61	1959	Ferret Military Scout Car	Green	1/67
	1967	Alvis Stalwart (BP)	White and Yellow	1/96
	1972	Blue Shark	Metallic Blue	1/63
	1980	Wreck Truck	Red and White	1/63
62	1959	Military General Service Truck	Green	1/87
	1964	TV Service Van	Cream	1/75
	1965	TV Service Van	Cream (Rentaset) (Radio Rentals in 1968)	1/86
	1969	Mercury Cougar	Metallic Green	1/86
	1971	Rat Rod Dragster	Lime (Fawn in 1973)	1/86
	1975	Renault 17TL	Red	1/56
	1980	Chevrolet Corvette	Red	1/64
63	1959	Ford 3 ton 4x4 Military Ambulance	Green	1/100
	1965	Airport Fire Tender	Red	1/93
	1969	Dodge Crane Truck	Yellow	1/86
	1973	Freeway Gas Tanker	Red and White (Burmah) (Red and Yellow (Shell) in 1980)	1/90
64	1959	Army Scammel Breakdown Truck	Green	1/98
	1966	MG 1100	Green (Metallic Blue in 1970)	1/57
	1972	Slingshot Dragster	Purple	1/68
	1976	Fire Chief Car	Red	1/65
65	1959	Jaguar Saloon Car 3.4 Mk 1	Blue	1/72
	1962	Jaguar 3.8 Mk II	Metallic Crimson (Metallic Red in 1966)	1/72
	1968	Combine Harvester (CLAAS)	Red and Yellow	1/106
	1973	Saab Sonnet III	Blue	1/53
	1978	Airport Coach	Blue and White (British Air) (American Airways in 1979) (Lufthansa in 1980)	1/100
			(Red and White (Qantas) in 1980)	

(TO BE CONTINUED)

ALTERATIONS TO MEMBERSHIP LISTSNEW MEMBERSQueensland

HO/HOn3½	OM	MR	Mackay and District Model Railway Club		
			PO Box 754, Mackay	4740	57 2475
HO	OM	IR	Middleton J K	11 Bradwell Street, Zillmere	4304 263 6223
HO/HOn2½	OM	BC	Strautmanis P E	41 Jessie Street, Petrie Terrace	4000 368 1140
HO	OM	BSS	Petersen B K	4 Dargo Place, Algester	4115 273 2164

Victoria

HO	FM	CSMC	Johnston J N	91 Cheviot Avenue, Berwick	3806 707 4870
	FM	XX	Johnston S Miss	91 Cheviot Avenue, Berwick	3806

Western Australia

OO	OM	SES	Regensburger E	26 Amherst Street, Fremantle	6160 335 8294
	OM	SES	Stanton R C	93 Wilfred Road, Thornlie	6108 458 8793

New South Wales

HO	OM	SS	Bindley M C	43 Wolli Street, Kingsgrove	2208 50 9532
N	OM	SS	Van Doorn G	10 Seaview Crescent, Stanwell Park	2509 042 94 2940
	SM	WMC	Vincent A	PO Box 29, Greenwell Point	2540
HO	OM	SS	Audet A A	21 Baker Street, Oatley	2223 57 5882
HO	FM	SS	Shoebridge H J	24 Brisbane Street, Chifley	2036
	FM	XX	Shoebridge G	24 Brisbane Street, Chifley	2036
HO	OM	SS	Stapleton M	17 John Street, Hurstville	2220 57 1240
HO3½	OM	SS	Elderton T R	16 Wollondilly Place, Sylvania Waters	2224 522 9640
HO/OO	OM	SS	Moggs N	45 Colson Street, Monterey	2217 588 2920

Overseas

HH/OO	OM		Roche M	4445 Clausen Avenue, Western Springs, Illinois	312 2466884
				USA 60558	

LATE RENEWALSQueensland

HO	OM	RR	Treacy J	34 Cambridge Street, Rockhampton	4700
HO	OM	NC4	Lebsanft J G	13 Tarakan Street, Bundaberg	4670 071 721267
		BSS	McTaggart C	101 Laura Street, Ekibin	4121
New Address		BSS	Yuille J	14 Moonarie Street, Sunnybank Hills	4109

New South Wales

HO	OM	NWS	Grace R C	9 Duneba Drive, Westleigh	2120 848 9867
HO	OM	SS	Davis R R	12 Josephine Street, Riverwood	2210 533 1879

Victoria

N	OM	BMC	Snell E C	43 Scott Street, Vermont	3133
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Western Australia

OO	OM	PC	Pugh S M	6 Myrtle Street, Perth	6000 328 9161
OO	OM	NES	Selley M	46 Hutt Road, Dianella	6062

CHANGE OF ADDRESSVictoria

	BMC	Croydon Narrow Gauge Group Inc	PO Box 155, Croydon	3136
	MC	Brown D K	GPO Box 186C, Melbourne	3001
EX NSW	SMC	Guillard K H	Corner High and Skerry Street, Chiltern	3683

Western Australia

	NW	Rayner S M	C/o Meteorological Office, Halls Creek	6770 091 68 6187
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New South Wales

	CMC	Castle B	6 Jindalee Avenue, Pt Clare	2250
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CORRECTIONS TO APRIL LISTINGSVictoria

Johson A should be Johnson A 12 Service Street
 Wilke H H should be 1 Waterloo Street not Waterloo Place
 Richardson C E should be 18 Lesley Street not Leslie Street

Western Australia

Hodges B should be 6 Uringa Way not 16 Wardong Street
